

# Public Utilities

Volume 63 No. 12



June 4, 1959

## THE UTILITIES' STAKE IN EDUCATION

*By John D. Garwood*

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## Cost of Capital and the Capital Structure of Electric Companies

*By Franklin H. Cook*

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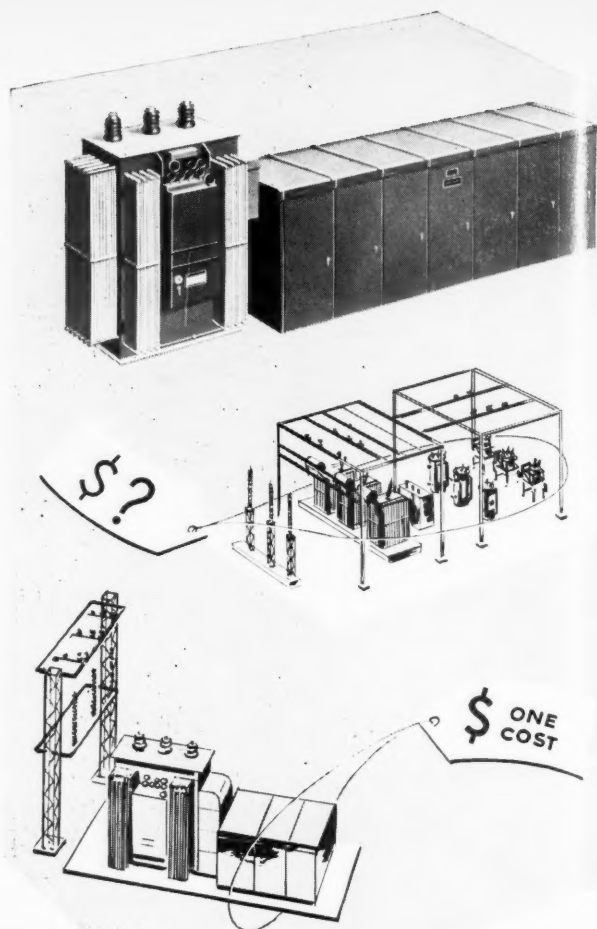
## The Undiscovered, Unsung Utility Director

*By James H. Collins*

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## Summary of the Examiner's Decision in the Phillips Gas Case

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# Public Utilities

## FORTNIGHTLY

VOLUME 63

JUNE 4, 1959

NUMBER 12



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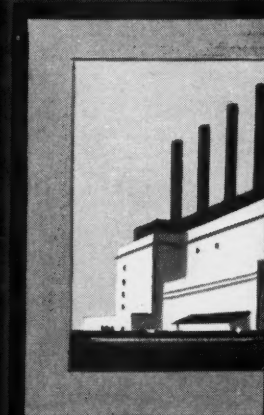
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# Pages with the Editors

WHAT should public utilities or any other form of business enterprise do when it is found that their operations or activities are being neglected or inaccurately presented or even misrepresented in the general educational process? The reference here is to the problem of obtaining a better understanding of our enterprise system at various school levels.

THIS is a very sensitive area of public relations and one that is not without its dangers and pitfalls. Direct intervention by a business interest with the academic function could have very unfortunate consequences. One need only hark back to the Federal Trade Commission investigation of the electric utilities during the early thirties to bring up charges that attempts had been made way back in the twenties to "poison the wells of knowledge" by subsidizing professors, tampering with textbooks, and similar serious criticisms.

ON the other hand, it is a fact that a good many teachers themselves feel the lack of adequate background or information about the way business operates in some respects. Do businessmen not have some responsibility to see that adequate facts are placed at the disposal of teach-



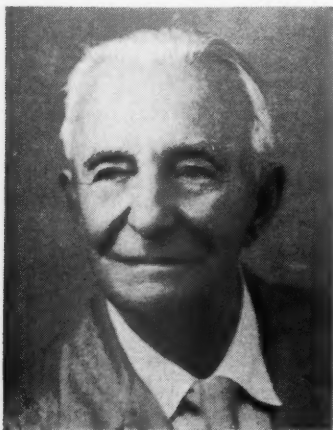
JOHN D. GARWOOD

ers? What is safe ground in dealing with this problem?

PERHAPS one safe course to follow would be to make facts available and then let both teachers and students judge for themselves. For some years a number of public utility companies have made use of "open house" visits to their plants and other properties. Here the teacher and pupils can see for themselves what makes the wheels go round.

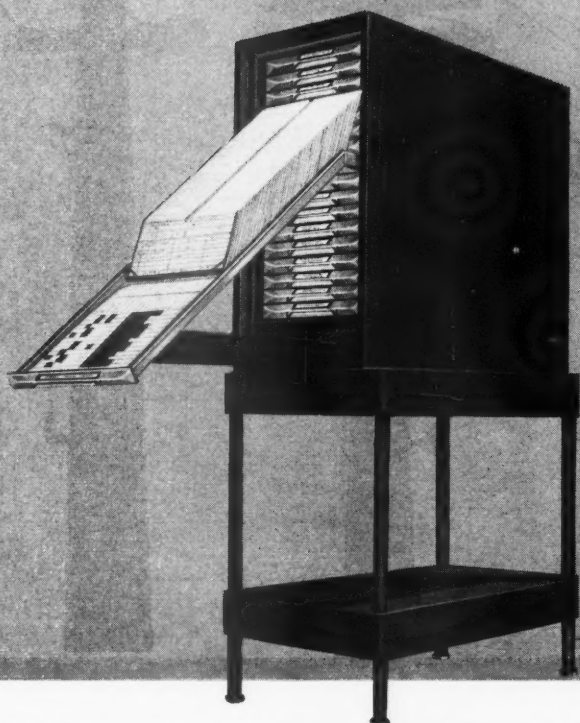
THE opening article in this issue was written by a veteran educator and professor of economics, who takes the view that it is necessary for teachers of economics (and through them their pupils) to get out of the classroom occasionally and into the market place to get the practical viewpoint. He suggests that direct contact and educational contribution could be valuable instruments in persuading economics teachers to take an overall view of the national economy instead of confining their instructions to theoretical blackboard puzzles.

MUCH of the misinformation about public utilities and other enterprises which seems to lodge in the heads of some American students cannot be traced to any sys-



JAMES H. COLLINS

# POLE CONTROL!



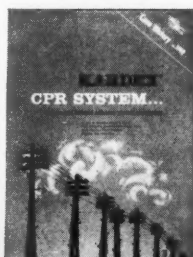
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tematic hostility on the part of teachers or textbooks. The explanation might well lie in the fact that nothing is done in a practical way to give the students a true picture of what goes on in American business. If the students are left to shift for themselves through highly theoretical courses of economics, we have a fruitful ground for error, fallacy, and economic prejudice. The traditional picture of the giant, soulless corporation, with its lack of concern for little people, is all too common even without any systematic inspiration.

THE author of this opening article is DR. JOHN D. GARWOOD, who teaches economics at Fort Hays Kansas State College. He is a graduate of the University of Wisconsin where he first studied public utilities under Dr. Martin G. Glaeser, now a member of the Wisconsin regulatory commission. GARWOOD took his Doctor's degree in Philosophy at the University of Colorado and has taught at that institution, as well as at the University of Louisiana, before taking his present faculty post.

\* \* \* \*

THE article on the "Cost of Capital and the Capital Structure of Electric Companies" is the follow-up of an earlier article on the "Capital Needs of Electric Power," which appeared in this magazine in the issue of December 4, 1958. The author is PROFESSOR FRANKLIN H. COOK, of the College of Business Administration at Pennsylvania State University. DR. COOK is a graduate of Bucknell University (AB, '33). He took his law degree at Duke University (LLB, '36) and has been teaching at Pennsylvania State University at various faculty posts intermittently since 1937. He has also taught at the University of California, Berkeley. He is a member of the American Economic Association, American Association of University Professors, American Institute for Management, and the American Business Law Association.

IN addition to numerous articles in business and professional publications, his most recent published work was "Signifi-



FRANKLIN H. COOK

cant Ratios in the Electric Power Industry," sponsored by the Bureau of Business Research of the College of Business Administration, Pennsylvania State University.

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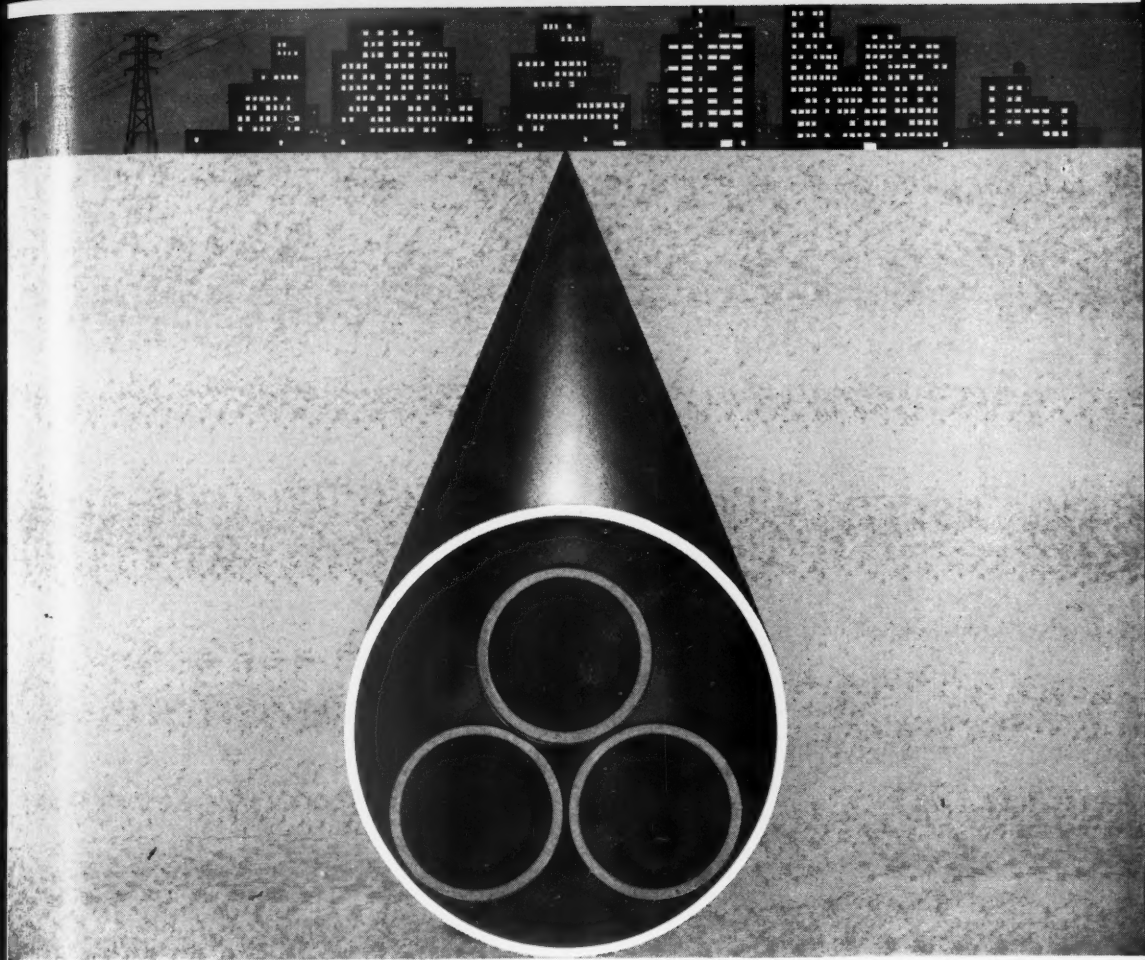
THE third featured article in this issue (beginning on page 839) has to do with an official who has long been concealed by a sort of respectable obscurity, which is usually associated with company directors. Our roving correspondent, JAMES H. COLLINS of Washington, D. C., with his typical curiosity about things which are too often taken for granted, decided to find out more about utility company directors. What is the typical utility company director? What is he expected to do? On what basis was he selected?

THESE are the questions which MR. COLLINS asked when he went behind the corporate scene to see what makes the average company director tick. He wanted to find out, for example, why some companies go in chiefly for career directors while others cultivate leading community figures in other lines of business for directorships. There is a good reason for both kinds, of course. MR. COLLINS wanted to find out why and his article tells us of his findings.

THE next number of this magazine will be out June 18th.

*The Editors*





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# Coming IN THE NEXT ISSUE

(June 18, 1959, issue)



## **WHAT'S WRONG WITH PUBLIC RELATIONS?**

During the past decade a number of universities have added to their curriculum the study of public relations. Many large utilities and trade associations, conscious of consumer unrest and unable to wait for the colleges to answer the problem, have organized their own public relations departments. Yet the fact persists that the utility industries are still lagging in reaching a satisfactory degree of communication with their consumers, and even their employees. Public relations men talk about this problem when they get together, but nobody has found a pat answer. And probably there is not a pat answer. Kimball I. Jack, vice president, sales, promotion, and information, The Washington Water Power Company, now comes to the conclusion that maybe public relations itself—as a profession or business specialty—is in need of better public relations. How much money should be spent for it? Where does it go after it is spent? These are the questions which intrigued this author in his attempt to psychoanalyze the present status of public relations in the public utility business.

## **FEDERAL EXPENDITURES AND THE ST. LAWRENCE SEAWAY**

This month, amid considerable pomp and circumstance, in ceremonies attended by the heads of two world powers (the United States and Great Britain), the St. Lawrence seaway will be opened to international commerce. Already "bugs" have developed—a bottleneck at the Welland Canal, inadequate channel and terminal facilities, traffic jams, and expensive delays—all have marred somewhat the pretty picture of the great inland sea lending itself to ocean-going vessels without hindrance. But these are the inevitable problems of the opening stage of any such vast and complicated project. Eric Schenker, assistant professor of economics, Michigan State University, has made a study of federal expenditures in the St. Lawrence seaway and has reached certain and realistic conclusions about the value of such undertakings and methods needed to justify similar expenditures in the future. It is not clear to Professor Schenker that the American taxpayer is getting his dollar's worth out of the St. Lawrence seaway, or ever will.

## **CAN A WATER COMPANY EXPORT ACROSS STATE LINES?**

Four years ago there was a calamitous summer flood in the Connecticut valley. By coincidence, at the same time state governors in that area had been meeting to work out some program for a shortage of water. The flood has gone, leaving damage in its wake, but the water shortage problem continues unabated. In fact, it is getting worse. Thomas E. J. Keena, now a congressional aide, but formerly on the staff of the HARTFORD COURANT, tells the story of an interesting experiment in bistate co-operation at the municipal level to handle the shortage of water supply.



**Also . . .** *Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.*

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Kw. Hrs.	No. Bills	Consumption in Kw. Hrs.	No. Bills	RATE - CUMULATIVE Consumption in Kw. Hrs.	Consolidated Factor
1	1	100	1	100	1.000
2	1	200	2	200	1.000
3	1	300	3	300	1.000
4	1	400	4	400	1.000
5	1	500	5	500	1.000
6	1	600	6	600	1.000
7	1	700	7	700	1.000
8	1	800	8	800	1.000
9	1	900	9	900	1.000
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96	1	9600	96	9600	1.000
97	1	9700	97	9700	1.000
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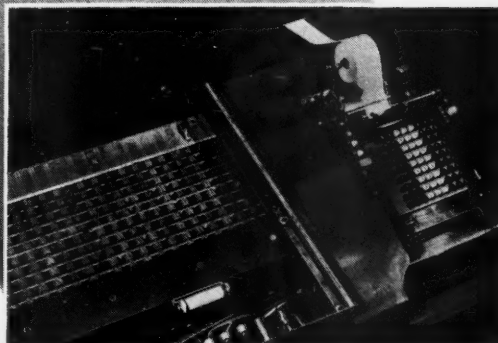
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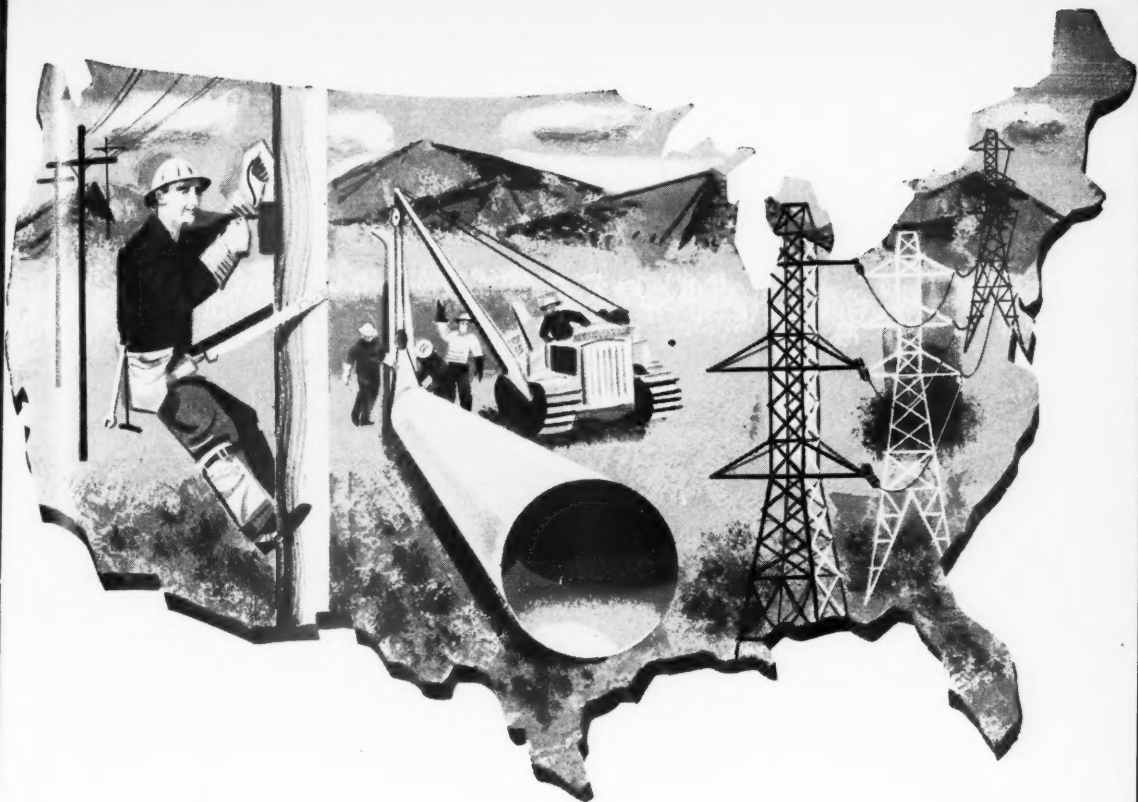
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M. S. RUKEYSER  
*Columnist.*

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EDITORIAL STATEMENT  
*The Wall Street Journal.*

"... the puzzle of the stock market is not inexplicable after all. The present stock market is not so much a reflection of feverish speculation as it is of quiet desperation. If a man has a little money but little confidence that its buying power will remain the same, what is he to do with it? And so it seems to us that if the government is uneasy about a too rapid rise in the stock market—as well it might be—the problem is not what new curbs on credit or on speculation to apply at the corner of Broad and Wall. What needs to be curbed are the things in Washington that have left the impression on so many people along Main Street that the government of the United States cannot be trusted to safeguard the value of their money."



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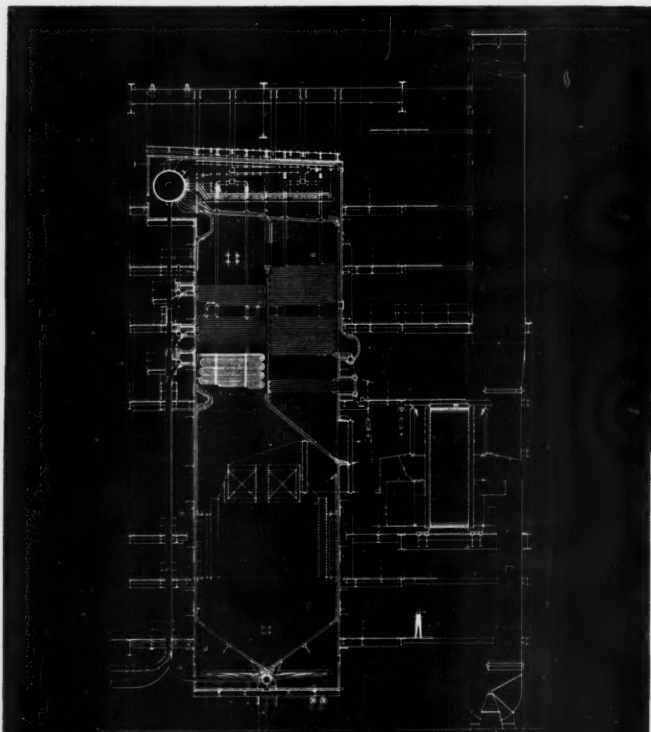
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ROY S. NELSON

# **New Yuma Axis Plant**

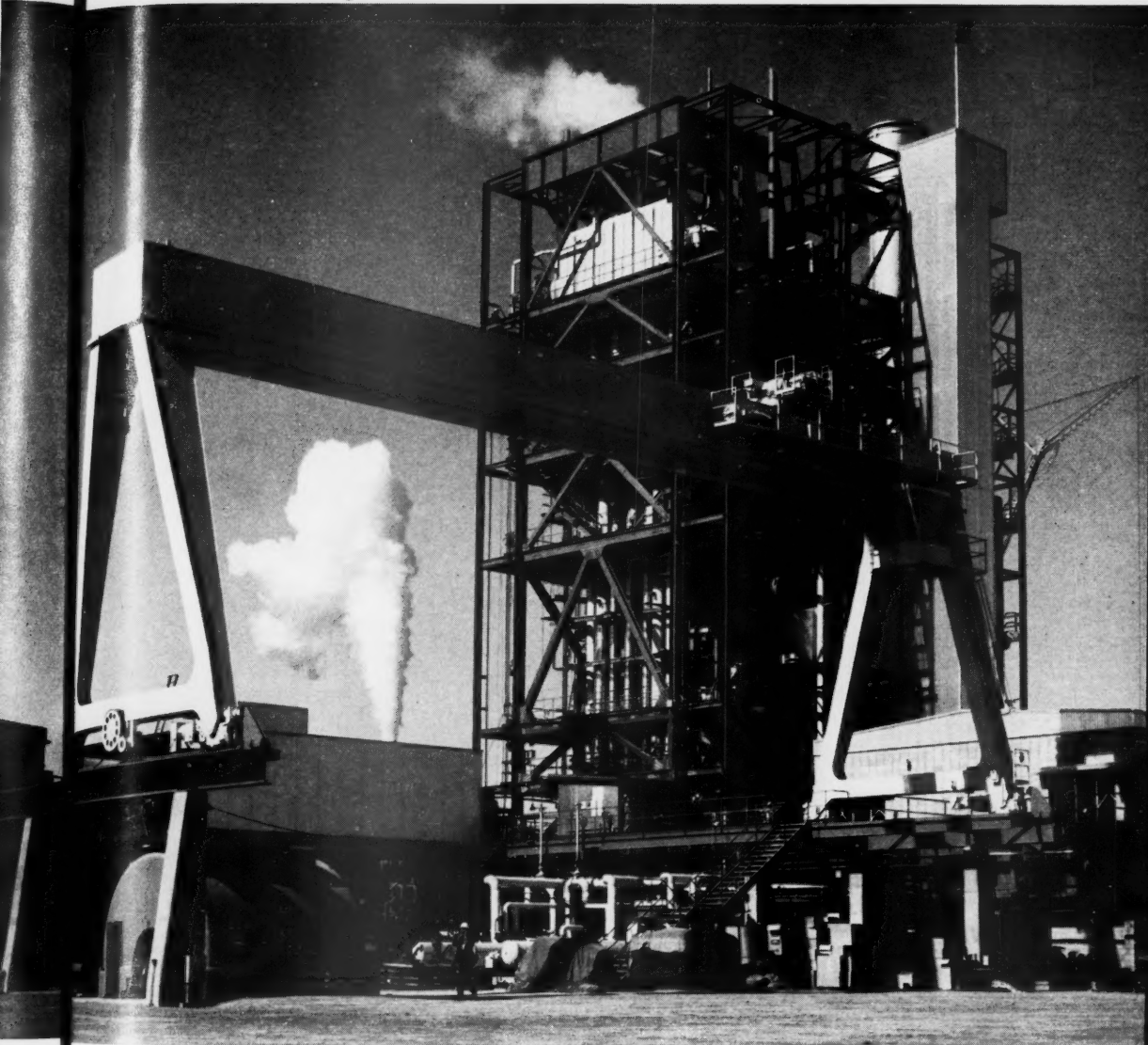
*Goes into service*



The C-E Unit shown above is now in service at the Yuma Axis Plant. It is a radiant, reheat boiler with the reheater section located over the secondary or finishing superheating surface directly above the furnace. An economizer section is below the primary superheater surface in the rear pass. A regenerative type air heater follows the economizer surface. Steam is produced at a pressure of 1850 psig and a temperature of 1000 F, reheated to 1000 F. The unit is fired with natural gas and oil using tilting, tangential burners.

**YUMA AXIS**





Unit One of California Electric Power Company's new Yuma Axis Steam Electric Generating Plant was recently placed in operation. The 80,000-kilowatt unit is the first of four units planned for this site to meet the ever-growing power demands of the lower Colorado River basin in Southern California and western Arizona. A second 80,000-kilowatt unit will be erected on the same site by Arizona Public Service Company, and subsequent units by the two utilities as the need arises. Located near the city of Yuma, this modern station of outdoor design was planned and constructed by the Bechtel Corporation under the general supervision of the Calelectric and Public Service engineering

departments. Its power will be transmitted at 161,000 and 69,000 volts.

The Yuma Axis Plant, so-named because an axis line through the property divides it between the two utilities, is the result of a unique power pool arrangement through which Calelectric and Public Service will share output of each unit to meet power demands in their respective service areas.

Steam for the new units at Yuma Axis Plant will be supplied by C-E Steam Generating Units, a cross-sectional elevation and brief description of which appear on the opposite page.

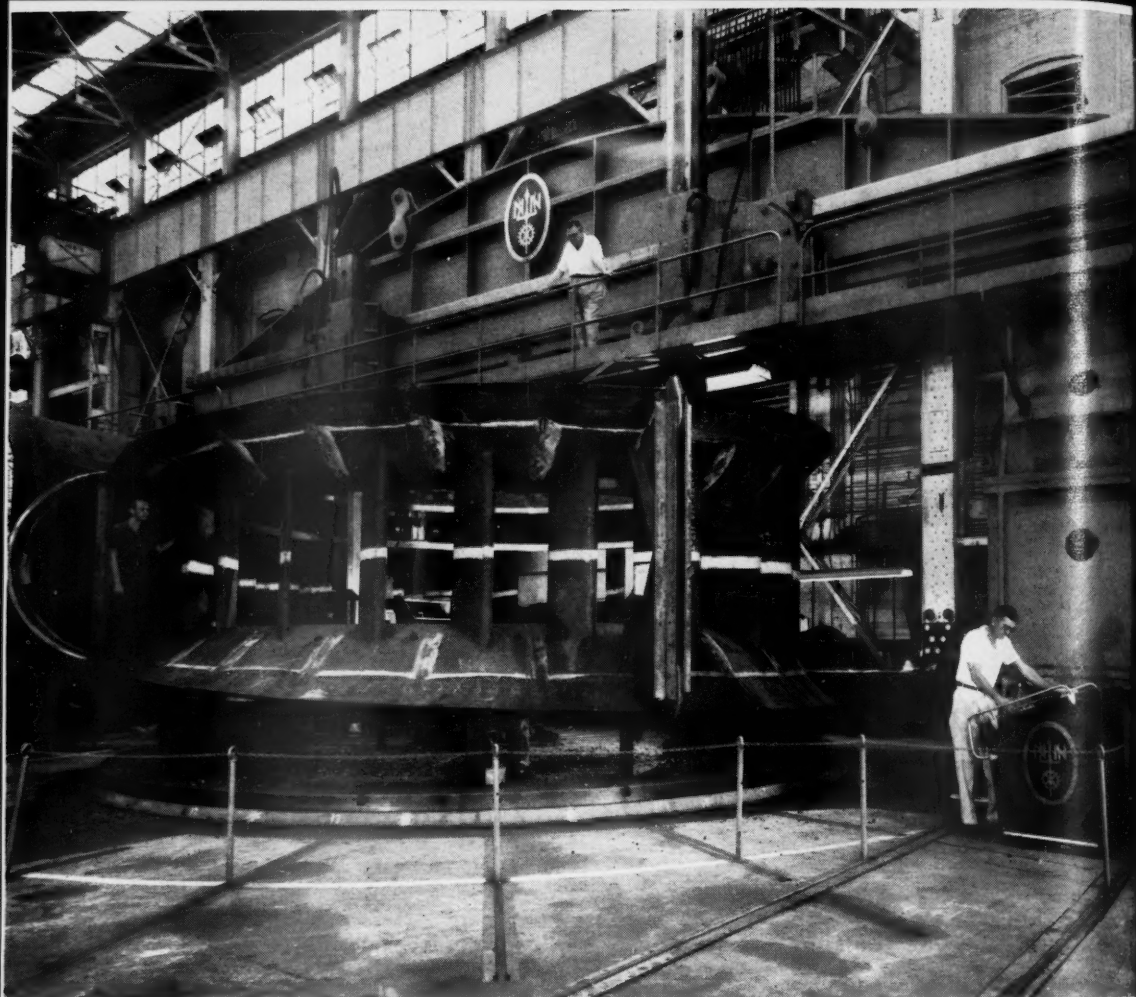
## COMBUSTION ENGINEERING

Combustion Engineering Building, 200 Madison Avenue, New York 16, N. Y.



C-212

ALL TYPES OF STEAM GENERATING, FUEL BURNING AND RELATED EQUIPMENT; NUCLEAR REACTORS; PAPER MILL EQUIPMENT; PULVERIZERS; FLASH DRYING SYSTEMS; PRESSURE VESSELS; SOIL P



42 ft. boring mill-rough cuts a stay ring for one of the world's most powerful hydraulic turbines.

## Newport News builds six king-size turbines for Niagara Power Project

These skilled Newport News machinists are milling a stay ring for one of six 200,000 hp. Francis-type hydraulic turbines. Before they're finished, they'll turn out five more turbines—the world's most powerful—for the Lewiston Power Plant of the Niagara Project.

Newport News has not only the men, but the facilities to take a job like this in its stride... your job, too. For example, the 42 ft. boring

mill pictured above was designed and built at Newport News.

The large engineering and technical staffs, acres of iron, brass and steel foundries, five huge machine shops, and additional specialized equipment make Newport News a leader in the production of hydraulic turbines, valves, gates, penstocks, and other water power equipment you need.

Consult Newport News engineers on preliminary design recommendations at no obligation.

**Engineers . . .** Desirable positions available at Newport News for Designers and Engineers in many categories. Address inquiries to Employment Manager.



**Newport News**  
Shipbuilding and Dry Dock Company  
Newport News, Virginia

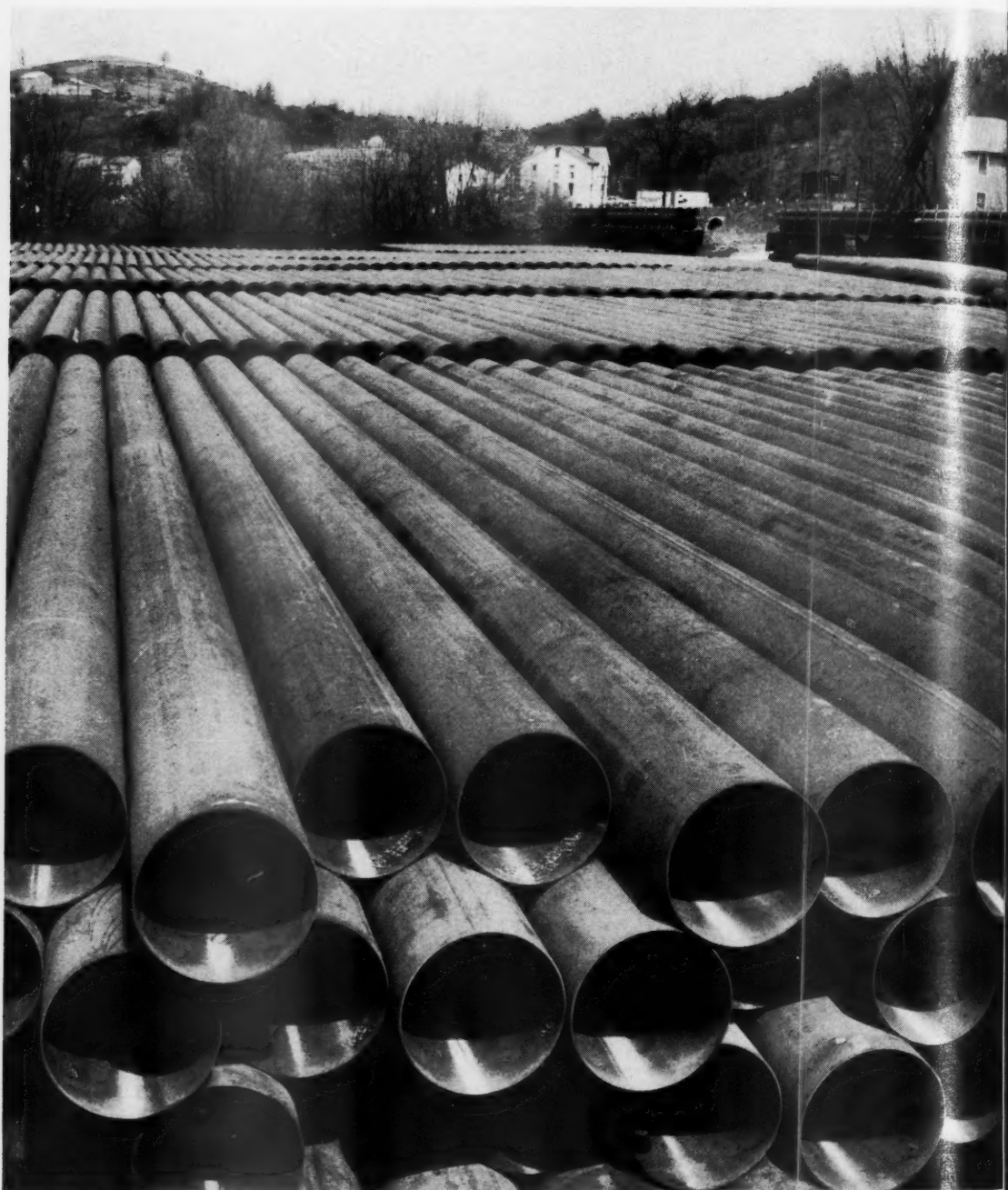
PUBLIC UTILITIES FORTNIGHTLY, JUNE 1, 1954

# UTILITIES

## *A.l.m.a.n.a.c.k*

### JUNE

<b>Thursday—4</b> <i>Northwest Electric Light and Power Association, Accounting and Business Practice Section, begins meeting, Butte, Mont.</i>	<b>Friday—5</b> <i>American Water Works Association, Pennsylvania Section, ends three-day annual meeting, Wernersville, Pa.</i>	<b>Saturday—6</b> <i>Michigan Electric Association will hold annual meeting, Mackinac Island, Mich. June 22, 23. Advance notice.</i> 	<b>Sunday—7</b> <i>American Society of Heating and Air Conditioning Engineers begins semiannual meeting, Vancouver, British Columbia, Canada.</i>
<b>Monday—8</b> <i>American Society of Refrigerating Engineers will hold annual meeting, Lake Placid, New York, N. Y. June 22-24. Advance notice.</i>	<b>Tuesday—9</b> <i>Wisconsin Utilities Association, Accounting Section, ends three-day convention, Delavan, Wis.</i>	<b>Wednesday—10</b> <i>New England Gas Association begins gas measurement and control school, Worcester, Mass.</i>	<b>Thursday—11</b> <i>Washington-Oregon Telephone associations begin joint convention, Seattle, Wash.</i>
<b>Friday—12</b> <i>First General Exhibition of the French Electrical Engineering Industries begins, Paris, France.</i>	<b>Saturday—13</b> <i>United Press International Broadcasters Association of Texas begins annual meeting, San Antonio, Tex.</i>	<b>Sunday—14</b> <i>American Gas Association-Independent Natural Gas Association of America begins national public relations conference, Chicago, Ill.</i> 	<b>Monday—15</b> <i>Interstate Oil Compact Commission begins midyear meeting, New Orleans, La.</i>
<b>Tuesday—16</b> <i>Canadian Gas Association will hold annual meeting, Victoria, British Columbia, Canada, June 22-25. Advance notice.</i>	<b>Wednesday—17</b> <i>American Marketing Association begins national conference, Cleveland, Ohio.</i>	<b>Thursday—18</b> <i>American Institute of Electrical Engineers begins paper and pulp conference, Orono, Me.</i>	<b>Friday—19</b> <i>Colorado Broadcasters and Telecasters Association begins meeting, Glenwood Springs, Colo.</i>



*Courtesy, The Peoples Natural Gas Company*

### **A Million Dollars in 24-inch Gas Pipe**

*That amount is not a pipe dream, but a pipe fact. Actually, 137,000 feet of 24-inch pipe are stored near Waynesburg, Pennsylvania, with which a 25-mile transmission line will be built from Waynesburg to the West Virginia state line. Cost per hundred feet—\$773.*



# Public Utilities

*FORTNIGHTLY*

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## The Utilities' Stake in Education

By JOHN D. GARWOOD\*

Somehow our teachers of economics and, through them, the pupils, must be led out of the classroom into the business shop and market place where they can see for themselves what makes the wheels go round. Direct contact and educational contribution may be the opening wedge for impressing on the economics teacher the overall view of the national economy instead of the poor little blackboard puzzles that illustrate theories of doubtful practical relevancy.

JOHN TYLER of Fairfield, Connecticut, is a builder. He averages 12-18 homes per year. With New England conservatism he estimates a minimum of 5 per cent of his productive time is spent in collecting taxes and filling out forms for the government.<sup>1</sup>

George Schulhoff of Cincinnati, Ohio, a hardware dealer and owner of a tool rental center, estimated that 29 per cent of his time is spent itemizing for the state,

local, and federal governments. Neither Tyler nor Schulhoff have contracts with the government. If they did, they would spend more time in this manner.

Before an electrical utility can build a new plant or add an addition to an existing plant, a certificate must be obtained from a regulatory commission. The industry estimates that around \$5 million a year is spent for paper work requirements to file these certificates.

It is estimated that it costs the gas and electric industry approximately \$14 million annually to prepare requests for changes in their rates. One company in the past has filled its plant with several

\*Professor of economics, Fort Hays Kansas State College, Hays, Kansas. For additional personal note, see "Pages with the Editors."

<sup>1</sup>Hoover Commission, Report on Paperwork Management, Part II, June, 1955, p. 45. Figures and examples which follow have been abstracted from this same source.



## PUBLIC UTILITIES FORTNIGHTLY

tons of documents and exhibits for such a case. It is usual for one or more of the Federal Power Commission representatives to then visit the utility. Indicative of the magnitude of this human effort is that representatives may buy or rent homes in the locality, check on schools for their children—then to work.

**T**HE federal government alone utilizes over 25 billion pieces of paper annually. Nine billion of these are filed in three million file drawers. Outside the government 62 million more file drawers are required to house these documents. Six billion punched cards are used up each year by the 23,150 pieces of tabulating equipment in the many agencies of the government.

Investigation has shown that where a company is regulated by a federal commission, twice as many records are stored. One company official notes that 309 file years are added to its record keeping by being subject to the Federal Power Commission regulations.

And so it goes, the citizen and the corporate structure are increasingly wound about with red tape by a growing bureaucracy.

In the field of personal income tax, the high priests of the Treasury don their ceremonial robes and perform their annual, solemn rite of changing the compliance form and the method of computing the tax. This is a task of no small consequence, yet it must be done in order that the citizen may be better served by those who give their time and talent in his cause.

The Bureau of Internal Revenue is notified where payments are made for income other than that reported on withholding

statements. Seventy-five million pieces of paper find their way to this focal point annually. The compliance costs American industry about \$20 million annually. One large company reported to the Hoover Commission that it had stopped sending its several hundred thousand reports a few years previously. Thus far they have not been missed.

**I**N a similar vein, at a cost of several million dollars annually, the firms of one industry submit annual statistics to a federal agency. It was reported to the Hoover Commission that certain executives of this industry, without formal knowledge of their companies, agreed each year to omit a different page in this large aggregate. It has not been missed.

In the early days of railroading it was feared that a railroad engineer might be made to work many hours overtime and thus endanger the safety of the train's passengers. Hence, since 1911 reports on the hours worked have been filed with the Interstate Commerce Commission. With the coming of unions it is dubious if this is a real danger. Nevertheless, the report filing continues.

The small businessman is increasingly secured in red tape. One of his loudest protests is that dealing with the number of times he must file his name, address, type of business, number of employees, sales volume, etc. Everyone wants to help the little fellow, yet this attempt to help him brings with it questionnaires of varying size and content.

He is subject to not only governmental attention but also that of other businessmen. Thus, a prime contractor reporting to the government on his subcontracts

## THE UTILITIES' STAKE IN EDUCATION

must secure this information from the little fellow holding the subcontract.

As government activities enlarge, as government spending and contracting grow, the economic system, which in the past has dynamically responded to any challenge thrown out, bends beneath its harassing burden of paper work and directives to be followed.

### Mid-century Examination

THE Hoover Commission rendered a great service to the country in cogently pointing up the wastes of a government grown too large for mortal man to control. Growing governmental activity is accompanied by, and bound together by, freshly ground paper forms. There is no field of economic endeavor that is not directly affected by directives arising from the land of the Potomac.

A knowledge of the magnitude and far-reaching effect of this governmental effort is the most important premise in the field of economics today. In the fields of labor, banking, finance, agriculture, investment, utilities, and in allocation of resources generally, the prime factor is the will of the government.

Thus, the federal government owns 472 million acres of land in the continental United States, about one-fourth of total land area. About 2.5 billion square feet of building space is owned by government. In terms of floor space this would be about 1,250 Empire State buildings. In addition, the government owns tremendous areas of land in its territories and possessions and owns or leases large areas in foreign countries. Further, the government pays rent to landlords on millions of acres of land and millions of square feet of floor space. It owns and manages big and little industrial plants covering many products. These assets are located in more than 60,000 locations in more than 400,000 buildings, parcels of land, or separate real property facilities valued at over \$44.4 billion. During the 169 years of this country's history over four-fifths of all federal construction has been in the last twenty years.<sup>2</sup>

The cost of federal real property management is more than \$7 billion annually, a figure which includes the salaries of 370,000 government employees engaged in full-time operational and management

<sup>2</sup> Hoover Commission, Task Force Report on Real Property Management, VII.



"INROADS on freedom are not initiated by those who prefer that others assume responsibility for directing their lives . . . The real danger lies among those of us who genuinely desire to protect freedom and who think that this can best be done by limiting it. They propose to give a little here to protect a lot there. . . . The very amplitude of our American brand of freedom sometimes seduces us into believing that a great deal of it can be spent without anyone really noting the difference—that we can afford, as Carl Becker put it, 'to take liberty with our liberties.' But the difficulty is that small restrictions accumulate into larger restrictions and, in the process, may become habitual, as freedom was before. Restrictions justified as necessary safeguards of freedom may, in fact, safeguard freedom out of existence altogether."

## PUBLIC UTILITIES FORTNIGHTLY

functions. Real property management is one of the government's major activities, accounting for about 10 per cent of the budget.

**T**HIRTY-TWO per cent of the national income is taken by all units of government in taxes; money is then put back into the economic system through government spending. In this manner spending by the various units of government allocates our resources into channels of choice made by government fiat.

As noted above, it would seem that a contemplation of this vast scale of endeavor would occupy a place in the study of economics commensurate with the rôle it occupies in our economic life. Unfortunately, it does not. Our neglect of emphasis may have fateful far-reaching implications.

One hundred fifty years ago Reverend T. R. Malthus, of population fame, put it this way, "Political economy is perhaps the only science of which it may be said that the ignorance of it is not merely a deprivation of good but produces great positive evil." In the economic textbooks the Hoover Commission findings of the middle fifties have either been omitted or relegated to a footnote, a short step to oblivion. Congress itself has chosen to ignore many of the key recommendations of the commission.

Too long the novice student of economics has been beleaguered with theoretical problems which many professors delight in developing on chalk-marked blackboards. It is not an exaggeration to say that from a fourth to a third of the material covered in the beginner's economic text has little relevance for reality. Aye, sometimes, little

relevance for a theoretical frame of reference.

Our economic courses need a reorientation, oriented to the facts of *life*, as we find them at the mid-century marker; *i.e.*, an economic system composed of groups which have evolved into units which look to the government for direction, rules of the game, and succor in times of stress. This is indeed a far cry from the structure of the economy which crossed the threshold of the twentieth century.

### To See Where You Are, Look Back

**T**HE year 1900 economy looked toward competition, free markets, respect for private property, rewards for work, and limited government action as making for a prosperous and dynamic economy. Following Adam Smith's rules of individual and collective conduct, Americans have won the highest standard of living on earth.

In less than two lifetimes they swarmed across the mountains and plains to the Pacific ocean. Everywhere they went they invented some better way to do something. They invented the cotton gin, the steel plow, the reaper, and interchangeable machine parts. They put the steam engine to work. They made the first practical use of electric motors. Each of these inventions and developments made it possible to get more work done in less time with less human energy.

At the present time in the United States machines do about 94 per cent of the physical work; animal power, 3 per cent; and man power, 3 per cent. In 1850 it was man power, 15 per cent; animal power, 79 per cent; and machine power, 6 per cent. As late as 1900 it was man power, 10 per cent;

## THE UTILITIES' STAKE IN EDUCATION

animal power, 52 per cent; and machine power, 38 per cent.

Use of machines means capital invested; invested capital results from savings; and savings accrue because the saver has not spent all of his money for consumption. Our economic frame of reference has created a situation where more could be produced than consumed and at the same time has permitted these savings to be used as the owner saw fit to use them. The end product of this has meant the highest standard of living in the world.

A MEASURE of American industrial growth is provided by a comparison

with the older industrial countries of Europe. In 1860 the United States was fourth among the countries of the world in value of industrial output, behind Great Britain, France, and Germany. Thirty-five years later the United States was the world leader. On the eve of World War I the volume of American industrial production equaled that of Great Britain, Germany, and France together.

The United States, with a sixth of the land surface of the world, with about 6½ per cent of the world's population, produces about 60 per cent of the world's goods. The United States spends more on highways alone than the entire value of



## A Planned Business-Classroom Program Desirable

THE economist needs to get the 'feel' of the business community to go along with his academic training. In particular, he needs to recognize the business-government relationship as it exists today. The man in the business world is much more aware of Washington than is the occupant of the classroom. In achieving a closer relationship, it appears to the writer that the initiative for this desideratum must rest with those in business. The economics professor needs to be brought to the business world from time to time to unite his theory with practice. This is a call not for an 'ebb and flow' approach but a long-run, constant, planned program for an integration of those in economics with those in the field of business. . . . too long those in business have been 'penny-wise and pound-foolish' in not seeking a working arrangement with those in the instruction processes."



## PUBLIC UTILITIES FORTNIGHTLY

Norway's economy. New home construction totals more than the total economy of Spain. New construction is greater than the combined economies of Mexico, Denmark, and Australia.

Americans own three-fourths of all the automobiles of the world. They own over half of the world's telephones, half of the world's radios, three-fourths of the television sets.

Two-thirds of all oil utilized is used in the United States. Half of the world's coffee consumption takes place here. Two-thirds of the world's silk finds its way to American markets.

American factory workers earn more real wages than any workers in the world. The United States factory worker can buy about four suits of clothes with a month's wages, the Russian half a suit.

An American worker earns about \$10 in an eight-hour day, the Englishman, \$4.22; the Russian under Communism, about 99 cents.

In the field of housing we have about eight times as much living space per person as the people of Russia. More than half of all American families own their own homes.

AMERICANS are so used to having enough to eat that they forget that about half of the people of the world go to bed each night hungry. The Americans are about the only large group of people in the world who never have had a famine. Until a little over a hundred years ago, famine came quite frequently even in Europe.

Mankind has been on the earth a long time. Even written historical records go back about 6,000 years. (Cave paintings and other human artifacts go back 30,000

years.) Two-thirds of recorded history thus happened before the birth of Christ. It was 1,492 years from the birth of Christ to the discovery of America. It was almost 300 years more before our Constitution was adopted. We have been under the Constitution less than 200 years.

Our life as a nation is only a wink in the eye of history. Yet in that short time Americans have made a record that exceeded all man's previous hopes. Two of the main reasons for that almost unbelievable achievement have been individual freedom of choice and personal freedom of action.

### What about Freedom?

ALEXANDER HAMILTON observed that external threats are the most powerful molders of national conduct bending after a time "even the ardent love of liberty. Continual danger," he said, "will compel nations the most attached to liberty to resort for repose and security to institutions which have a tendency to destroy their civil and political rights. To be safer they, at length, become willing to run the risk of being less free."<sup>3</sup>

As in Hamilton's day, so also in ours; the tremors foreseen in 1788 are felt realities. Many endorse with great sincerity steps that may conceivably strengthen national safety even when these steps may entail some loss of freedom or occasional injustice to individuals. We face today not a sharply drawn choice between an absolute good and an absolute evil, but between one good and another—what the Greeks thousands of years ago recognized as a tragic issue; namely, the clash of rights, not the clash of wrongs; and we have per-

<sup>3</sup> *Federalist Papers*, No. 8, p. 42.



## THE UTILITIES' STAKE IN EDUCATION

fectured no calculus for resolving that clash.<sup>4</sup>

In every society, in every age, and certainly in our own, there are multitudes who, in Archibald MacLeish's phrase, "fear freedom or are frightened of the loneliness it implies."<sup>5</sup>

INROADS on freedom are not initiated by those who prefer that others assume responsibility for directing their lives; these flabby folks become the hordes that sustain dictatorships, but they themselves are inert to bring it. The real danger lies among those of us who genuinely desire to protect freedom and who think that this can best be done by limiting it. They propose to give a little here to protect a lot there. The motive is admirable, but the judgment is open to question. The very amplitude of our American brand of freedom sometimes seduces us into believing that a great deal of it can be spent without anyone really noting the difference—that we can afford, as Carl Becker put it, "to take liberty with our liberties."<sup>6</sup>

But the difficulty is that small restrictions accumulate into larger restrictions

<sup>4</sup>*Individual Freedom and Governmental Restraints*, by Walter Gellhorn.

<sup>5</sup>*Ibid.*, p. 39.

<sup>6</sup>*Freedom and Responsibility in the American Way of Life*, by Carl Becker, Knopf, p. 18.

and, in the process, may become habitual as freedom was before. Restrictions justified as necessary safeguards of freedom may, in fact, safeguard freedom out of existence altogether.

As the late Chief Justice Harlan Fiske Stone put it, "History teaches us that there have been few infringements of personal liberty by the state which have not been justified—in the name of righteousness and the public good. . . . The framers were not unaware that under the system which they created, most governmental curtailments of personal liberty would have the support of the legislative judgment that the public interest would be better served by its curtailment than by its constitutional protection."<sup>7</sup>

It is not too early to ponder whether the danger point is not at hand.

FREEDOM is not a monolith to be possessed altogether or not at all. It is rather a mosaic of many tiles. The design may not be noticeably marred by the removal of a single tile here and another there. Yet the whole picture may be lost if enough "unimportant" pieces are removed.<sup>8</sup>

<sup>7</sup>*Minersville School District v. Gobitis* (1940) 310 US 586, 604.

<sup>8</sup>*Individual Freedom and Governmental Restraints*, by Walter Gellhorn, pp. 152-155.



" . . . it is the feeling of the writer that economists in the classroom need to recalibrate their teaching focus in terms of the economy as related to the government rôle. With few exceptions it is not being done. The Hoover Commission reports should be in every economist's library. But they are not. Their claim to academic prominence has been of the footnote variety. Yet the complete commission reports can be secured from the Superintendent of Documents for less than \$15. Unfortunately, these reports rest in peace in most college libraries. It has long been the hope of the writer that some day interested business groups would see to it that material of this nature would flow to the economics departments as it is available."

## PUBLIC UTILITIES FORTNIGHTLY

The danger lies in the fact that if change comes about not by sledge-hammer blows but bit by bit, such change may be ignored. Thus, if loss of freedom trammels only the other fellow and a citizen is not touched personally, the citizen may ignore it.

Man is extraordinarily adaptable to his environment. This admirable quality, although important to physical survival and material advancement, becomes a peril in the realm of the spirit. Individuals acclimatize themselves to an atmosphere of repression readily as to the malodorous effluvia of the cities in which they live. Restraints rapidly come to be viewed as the normal, as a way of life.

At Los Alamos perched on a sun-baked mesa in New Mexico, the visitor is struck by an unfamiliar sight—machine-gun towers, light tanks, and other impediments of national security. Yet the apparatus of security goes unnoticed by those grown accustomed. Men go about their daily routines of making a living, ladies lounge in their bridge groups, Rotarians fraternize with Rotarians, children act like children. Thus, those there are untouched by the peculiarities of the Los Alamos atmosphere—the peculiarities become the conventionalities of life.

**T**HE Socratic maxim that the recognition of our ignorance is the beginning of wisdom has a profound application to our economic and social life.

An American way of life is conceivable that holds much less expansiveness, much less spontaneity, much less diverse richness than the American way of life we cherish today. Sensitivity to the process of alteration must be manifested before the alteration is completed. Lethargy and

custom soon become repressive forces and find a full quota of supporters. To remain muscularly free, freedom needs constant exercise.

### In the Classroom

**I**N the land of universities and colleges today science is king. The fact that one of the most backward countries in Europe has in forty brief years taken control of one-third of the world's people and one-fourth of the world's territory has placed upon us the lash of fear. Yet in many areas life goes serenely onward.

On the blackboards in the economics classrooms the thought processes of a generation are being molded. An eminent economist, Dr. Calvin B. Hoover of Duke University, recently completed a three-year study for the Twentieth Century Fund on "Economy, Liberty, and the State."

He observed that "among the leading economic systems of the world modern Capitalism, as it exists in the western nations, is strong, productive, popular, and in almost no danger of being supplanted or overthrown by collectivism." At least it will not be supplanted by the will of the people. He notes that the Socialist parties are either in decline or have been openly abandoned because they found that nationalization does not work. It is Dr. Hoover's thesis that the greatest force behind the resurgence of modern Capitalism as the best way to produce the greatest good for the greatest majority is the visible fruit of modern Capitalism in Western Germany, a nation which recovered tremendously fast through the rejection of socialist controls and socialist regimentation.

## THE UTILITIES' STAKE IN EDUCATION



### Economic Courses Are in Need Of Reorientation

"**T**OO long the novice student of economics has been beleaguered with theoretical problems which many professors delight in developing on chalk-marked blackboards. It is not an exaggeration to say that from a fourth to a third of the material covered in the beginner's economic text has little relevance for reality. Aye, sometimes, little relevance for a theoretical frame of reference. Our economic courses need a reorientation, oriented to the facts of life, as we find them at the mid-century marker; i.e., an economic system composed of groups which have evolved into units which look to the government for direction, rules of the game, and succor in times of stress. This is indeed a far cry from the structure of the economy which crossed the threshold of the twentieth century."



**D**R. HOOVER believes that the chief danger to Capitalism is the danger that it may be suffocated by its own "welfare" state. Thus, we may, through our efforts to do good for everyone, dull our initiative, blunt the dynamism of competitive endeavor, and enmesh and entangle us in "five copies" of every transaction culminated. As he sees it, a competitive economy is an essential part of the shield of individual liberty.

As noted earlier, it is the feeling of the writer that economists in the classroom need to recalibrate their teaching focus in terms of the economy as related to the government rôle. With few exceptions it

is not being done. The Hoover Commission reports should be in every economist's library. But they are not. Their claim to academic prominence has been of the footnote variety. Yet the complete commission reports can be secured from the Superintendent of Documents for less than \$15. Unfortunately, these reports rest in peace in most college libraries.

#### Business Can Help

**I**T has long been the hope of the writer that some day interested business groups would see to it that material of this nature would flow to the economics departments as it is available. It is justifiably

## PUBLIC UTILITIES FORTNIGHTLY

hard for the nonacademician to comprehend why much material of this nature may go unread among those in the classroom. Too often, the teacher, busy with leaky faucets, rhubarb replanting, choir practice, and child welfare projects, fails to apprise himself of where we are.

It is not too difficult for a teacher to become accustomed to accept widespread government intervention in the economic system as a way of life and, thus, give little searching thought to the multibillion-dollar figures with which he deals. In this respect layman and theoretician are quite alike.

OUR federal tax system today, as far as possible, is geared to create a minimum amount of tax consciousness for most taxpayers. Thus, the income tax, like the sales tax, is paid in such a manner that the taxpayer is not made tax conscious; *i.e.*, the tax is made convenient and painless for him to pay through withholding by the employer.

A man may "suffer more pain" in purchasing a set of new tires than paying to the government ten times that amount in income taxes—he accustoms himself to a smaller pay check and after the initial shock goes about his business.<sup>9</sup>

Only a very few are tax conscious about the corporation income tax, the second largest revenue producer for the federal government. The stockholders—the owners—receive their dividends; they are not keenly aware of the magnitude of the tax bite. The corporate managers are most acutely aware; yet, in terms of numbers, they are relatively few, and, too, they are

dealing with other people's money other than their own.

Excise taxes are reflected in the purchase price of the good purchased. By the way, what was the amount of excise tax on your last fifth of whiskey? Did you realize you were paying this tax? (Total state and federal taxes would amount to 45 per cent of the purchase price.)

The economist needs to get the "feel" of the business community to go along with his academic training. In particular, he needs to recognize the business-government relationship as it exists today. The man in the business world is much more aware of Washington than is the occupant of the classroom. In achieving a closer relationship, it appears to the writer that the initiative for this desideratum must rest with those in business.

The economics professor needs to be brought to the business world from time to time to unite his theory with practice. This is a call not for an "ebb and flow" approach but a long-run, constant, planned program for an integration of those in economics with those in the field of business. The writer feels that too long those in business have been "penny-wise and pound-foolish" in not seeking a working arrangement with those in the instruction processes.

### The Utility's Stake in Education

PUBLIC utilities, by virtue of their quasi-public nature, have a vital stake in education. Whereas other types of business may contribute sizable amounts for educational purposes, rate-making agencies may not always regard such utility expenditures as being legitimate for expense allowance under rates. With the recognized educational dilemma today, a

<sup>9</sup> "Let's Control the Budget Makers," by John Garwood, *American Mercury*, November, 1957, pp. 34-39.



## THE UTILITIES' STAKE IN EDUCATION

dilemma compounded by the need for financial aid to schools, it would seem that less stringent regulation of utility contributions would have salutary effects.<sup>10</sup>

In the field of the sciences a business-education relationship leads to a fruition of a tangible nature in research projects, new discoveries, etc. The results in the area of economics, though more intangible in nature, could conceivably have even more far-reaching consequences than those brought about in science.

Such a workable arrangement has not existed in any continuous form in the twentieth century. Too often economist and the practitioner resemble two mastiffs as they circle one another suspiciously. A rapprochement is the *sine qua non* in facing up to the dangers by Professor Hoover.

### Conclusion

SLOWLY, almost imperceptibly at times, the rôle of the government in the economic system enlarges. Historically, this is followed by the development of a concomitant philosophy in the classroom, a philosophy for the generation in school. There is no group in the economy more directly affected by a changing government rôle than is the business community. Yet frequently it professes little responsibility or interest of events on the campus. This position brings to mind Thurber's fable of "The Glass in the Field":

A short time ago some builders, working on a studio in Connecticut, left a huge square of plate glass standing up-

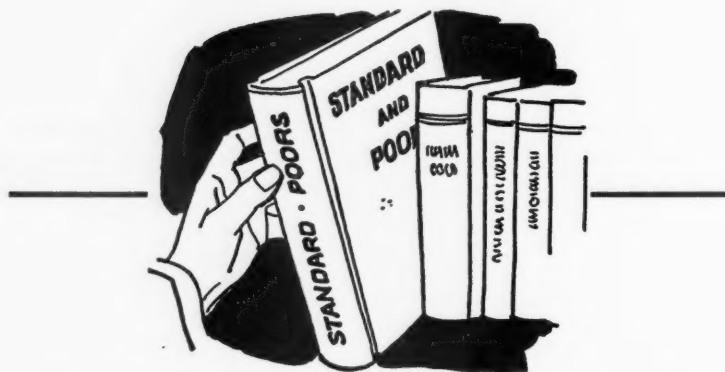
right in a field one day. A goldfinch flying swiftly across the field struck the glass and was knocked cold. When he came to, he hastened to his club, where an attendant bandaged his head and gave him a stiff drink. "What the hell happened?" asked a sea gull. "I was flying across a meadow when all of a sudden the air crystallized on me," said the goldfinch. The sea gull and a hawk and an eagle all laughed heartily. A swallow listened gravely. "For fifteen years, fledgling and bird, I've flown this country," said the eagle, "and I assure you there is no such thing as air crystallizing. Water, yes; air, no." "You were probably struck by a hailstone," the hawk told the goldfinch. "Or he may have had a stroke," said the sea gull. "What do you think, swallow?" "Why, I—I think maybe the air crystallized on him," said the swallow. The large birds laughed so loudly that the goldfinch became annoyed and bet them each a dozen worms that they couldn't follow the course he had flown across the field without encountering the hardened atmosphere. They all took his bet; the swallow went along to watch. The sea gull, the eagle, and the hawk decided to fly together over the route the goldfinch indicated. "You come, too, they said to the swallow." "I—I well, no," said the swallow. "I don't think I will." So the three large birds took off together, and they hit the glass together, and they were all knocked cold.

Moral (by Thurber): He who hesitates is sometimes saved; or (by the writer) if they had used their heads, this never would have happened.

<sup>10</sup> The writer is indebted to Lloyd C. Beach, Southwestern Bell Telephone Company, Hays, Kansas, for a frank discussion of this particular point.

# Cost of Capital and the Capital Structure Of Electric Companies

By FRANKLIN H. COOK\*



Varying economic and regulatory pressures exerted today on electric utilities have made their financing problems more difficult. To obtain new capital for expansion, such a utility must meet high standards in its financial structure. Especially scrutinized are its fixed liabilities in relation to net worth. Since rate of return plays a big part in an electric utility's financial picture, the public utility commission has a responsibility to fix it at a figure sufficient to attract new capital for the company.

**W**ITHIN the next thirty years the demand for electric power will increase quantitatively, geographically, and technologically.<sup>1</sup> Such pressure will require additional generating, transmission, and distribution equipment. New assets can be secured only through the employment of internal funds withheld in depreciation reserves and earned surplus, or by further capital issues, such as long-term debt, preferred stock, or common stock. Since in comparison with business

generally throughout the United States, the electric power company with its relatively high dividend pay-out ratio and comparatively recent adherence to depreciation accounting lacks internal funds,<sup>2</sup> the industry will have to place greater reliance upon external funds.

## The Importance of the Financial Structure

**I**N the attraction of capital, the financial structure—the percentage of its long-term debt, common stock, and perhaps preferred stock—is an important element, as significant as present and future demand, revenues, and costs. However, the capital

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## COST OF CAPITAL AND THE CAPITAL STRUCTURE

structure is not scrutinized as closely when replacement money is sought as when additional resources are needed. In the former situation, when old debt is being refinanced the retrospective consideration of plant, revenues, and costs is given great weight as a guide for the future. However, when new capital is to be added to the existing financial structure, past income and expense patterns cannot be given as much consequence in forecasting costs and revenues in the future, for the company will have a heavier capital structure, which will need a quantitatively larger operating statement to support it. The attraction of new capital places greatest emphasis upon prospective analysis.

IN seeking to attract capital for future operations the existing capital structure of the particular utility will come under close examination by one or all of three possible interested parties. The first would be the management of the utility itself. The second would be the investment house that would underwrite or market the securities.

Lastly, the regulatory commission in a rate case or the federal government for the issuance of new securities would be interested in the character of the financial pattern.

Important considerations for the management would be the nature of the future expense and earnings picture. Additional costs of operating new plant plus new depreciation charges and possible interest outlays would have to be considered. The prospect of greater earnings would have to be measured in terms of population to be served, wealth of the locality, trend of economic development, presence of actual or potential competitors, and comparative

earnings of similar or analogous utility situations.<sup>8</sup>

THE investment analyst would be interested in the quality of future earnings and their quantity. Quality would be dependent upon the capital structure, cleanliness of balance sheet, size of company, sources of revenue, operating ratio, fluctuation of earnings, and certain nonstatement factors such as the economy of the area, political climate, and the nature of the management. Quantity considerations would be short-range and long-range estimates of earnings, and how much the regulatory commissions would permit the company to earn.<sup>4</sup>

Government regulatory commissions, both federal and state, may have influence upon the nature of the capital structure of an electric power company. The Securities and Exchange Commission has jurisdiction of all securities issued in interstate commerce channels. Electric utilities that employ these channels must seek approval of this commission. State pressure upon the financial structure may come from two possible sources. First, if a state has a commission regulating the issuance of securities similar to the Securities and Exchange Commission, compliance with its requirements might be necessary. Secondly, the capital structure is a legitimate consideration in modern rate determination cases when the commission attempts to grant to the utility a return sufficient to attract capital.

### "Cost of Capital" versus "Attract Capital"

ALTHOUGH the Hope case<sup>5</sup> uses the term "attract capital" much of the current economic and professional writing appears

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to equate this term with "cost of capital."<sup>6</sup> *Quaere*: Are they really the same? Would not "attract capital" be a broader, more comprehensive term than "cost of capital"? "Cost of capital" would only be one element in a return sufficient to attract capital.

**A**LTHOUGH the public utility economist really became conscious of the "attract capital" principle as an important element in rate determination by Justice Douglas' decision in the Hope case, the rule had been enunciated much earlier in *Bluefield Water Works & Improvement Co. v. West Virginia Public Service Commission* (1923) 262 US 679, 692, 693, PUR 1923D 11, 20:

... What annual rate will constitute just compensation depends upon many circumstances and must be determined by the exercise of a fair and enlightened judgment, having regard to all relevant facts. A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and un-

certainities; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. . . .

**T**HIS rule seems to have three elements—all of which must be present: (1) a return similar to that on other like investments; (2) a return sufficient to maintain the credit position of the utility; and (3) a return sufficient to attract capital. Without attempting to dissect each component part of the rule—for there would seem to be overlapping—the rule implies that a return greater than compensation for sunk costs is intended.

In the case of additional capital sought there must be a return above interest and dividends sufficient to maintain the credit position of the utility and to keep its stock above book value.<sup>7</sup> Actually there is a return in the future based upon earnings from a plant to go into operation in the future. There is a prospective element in the term "attract capital" which may be



**F**OR the issuance of securities the ideal capital structure which the SEC, management, or the investment underwriter would formulate as a guide, would be a goal in the future for this particular company under prophesied future conditions. The existing capital structure with all of its errors in the past would be a starting point, then the necessary moves and changes would be formulated to achieve the desired ideal pattern of actual securities outstanding on a given date. The company would then operate under this financial plan, its credit rating would be based upon it, and its needed capital for future expansion would depend upon it."



## COST OF CAPITAL AND THE CAPITAL STRUCTURE

lacking in the designation of "cost of capital."

### Which Capital Ratio Is Best?

THE nature of the capital structure of the company will have an effect upon the financial expenditure pattern of the utility. At a definite position overall cost of capital, including interest and dividends, would be low when there is a certain proportion of debt capital, but when this ratio of debt capital gets too high the cost of equity capital is increased, and the latter may go to a point that it raises the total cost of capital.

Assuming that the debt and equity ratios are significant in determining the ability of a utility to attract capital, a decision must be made as to whether a return will be made on the actual capital structure,<sup>8</sup> or upon an ideal capital structure.<sup>9</sup> Although this latter position would impinge upon the prerogatives of management it seems to be followed by most states which are faced with a choice between the two positions of actual capital structure *versus* ideal capital structure.

The ideal capital structure will differ in accord with the purpose for which it is intended. If it is a guide in the issuance of securities, it will be tied to the past, the present, and to actualities; however, if it is used as a norm in determining a fair return, it is a fanciful figure, similar to reproduction cost, upon which an actual return is based.

FOR the issuance of securities the ideal capital structure which the SEC, management, or the investment underwriter would formulate as a guide, would be a goal in the future for this particular company under prophesied future conditions.

The existing capital structure with all of its errors in the past would be a starting point, then the necessary moves and changes would be formulated to achieve the desired ideal pattern of actual securities outstanding on a given date. The company would then operate under this financial plan, its credit rating would be based upon it, and its needed capital for future expansion would depend upon it.

However, in determining an ideal capital structure for rate-making purposes, the regulating commission need not be earth-bound by the existing capital structure. A totally new capital structure may be construed for the company as of that particular moment and for the foreseeable future when the new rates will go into effect. As a consequence of the Hope decision utilities have had the fair return on their rate base ignored if they were able to attract capital under their *existing* capital structure. By the use of an ideal capital structure not related to the instant capital position of the company being regulated, this return to the utility could be further reduced. *Quaere*: Would the lower limit below which there would be confiscation be a rate determined on the ideal capital structure which did not afford sufficient return to attract capital on the actual existing capital structure of the regulated concern?

### The Ideal Financial Structure

THERE appears to be no doubt that the return on a regulated utility is not to be compared to that of a speculative enterprise. Neither its return nor stock in the market should be so classified. However, on the theory of opportunity costs could an electric operating company be com-

# PUBLIC UTILITIES FORTNIGHTLY

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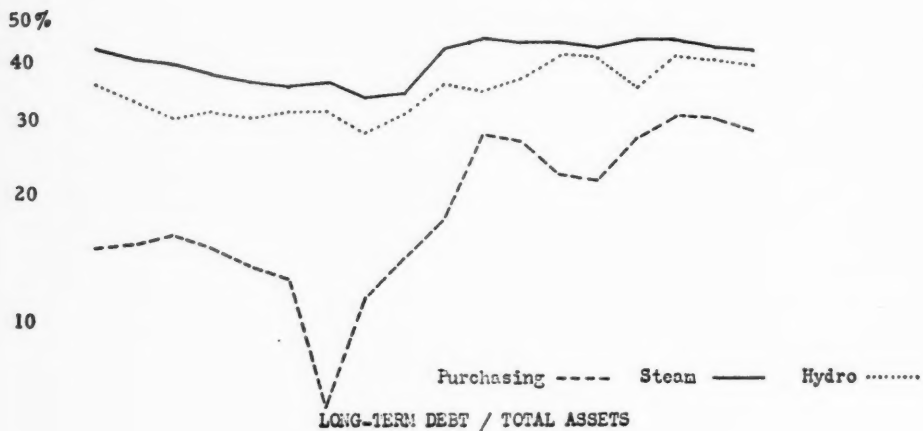


CHART A

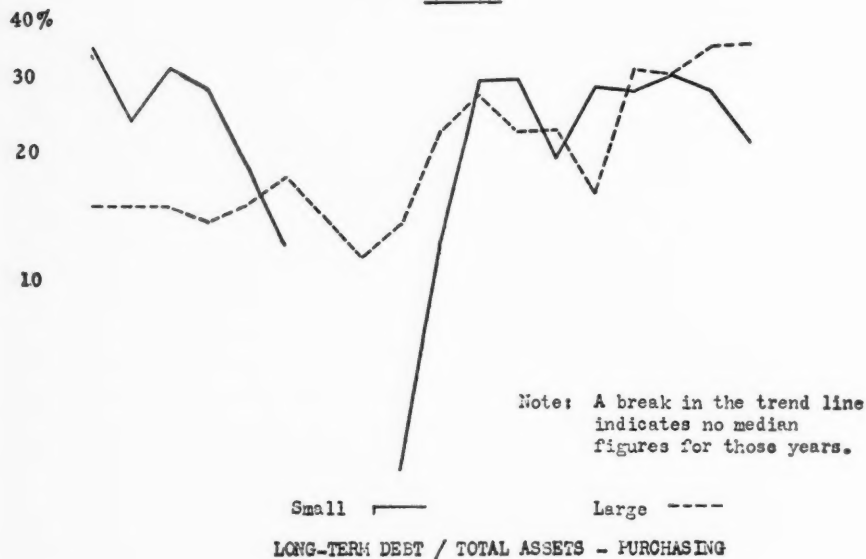


CHART 1

## COST OF CAPITAL AND THE CAPITAL STRUCTURE

pared to a grocery store within the same locality, or to some other stable form of competitive enterprise; to another utility such as a gas company, or should it be compared to another electric power company? If so, how similar must it be? What weight would be given to the fact that one company sold gas and electricity and the other only electricity; that one company was small and the other large; that one company purchased its power for resale and the other generated its output; that one company was regulated by one commission, and the other, by the commission of another state; that one company had a heavy residential load, the other, a high industrial load?

Obviously, all of these questions cannot be answered satisfactorily in getting a

suitable comparison from which to derive a fair return.

UNDOUBTEDLY, the most exacting comparison can be made with another electric power company. The Edison Electric Institute classifies the electric power companies of the United States into nine geographical areas. However, studies made by the writer for the Bureau of Business Research of The Pennsylvania State University<sup>10</sup> have made a functional classification of all of the electric operating companies in the United States that secure their operating revenue solely from the sale of electric energy. These companies were divided according to type on the basis of the source of over 50 per cent of their power sold. If it was secured by purchase,

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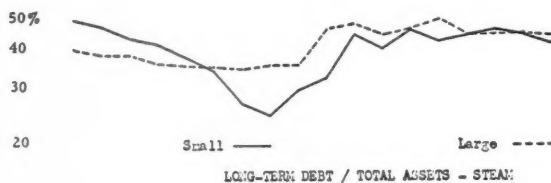


CHART 2

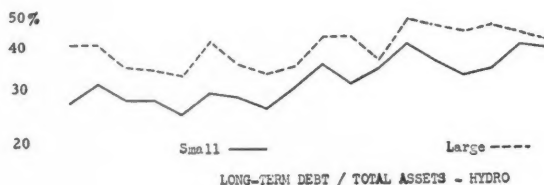


CHART 3

## PUBLIC UTILITIES FORTNIGHTLY

the company was designated as a purchasing company; by steam generation, a steam concern; by hydraulic generation, a hydro utility.

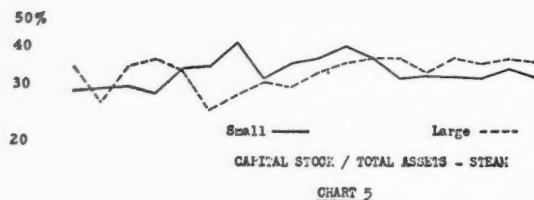
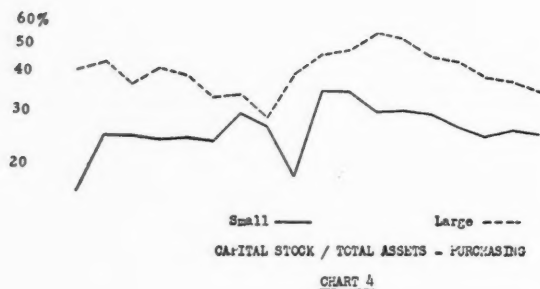
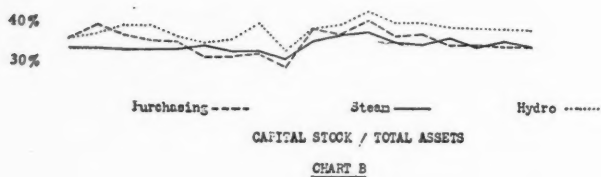
Size seemed to be important so a further subdivision was made according to size: small, medium, and large. For each of the nine subdivisions and each type—twelve separate classifications—medians were used for comparison of ratios. Size classification was made not on arithmetical

thirds, but upon natural groupings of operating revenue with an attempt to retain the same companies in the same groups over a period of years.

THE various charts and the tables for 1956 are measured in percentages of total assets. Customarily the capital structure has three component parts: long-term debt, preferred stock, and common equity—totaling 100 per cent. Such ratios can

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'39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61





## COST OF CAPITAL AND THE CAPITAL STRUCTURE

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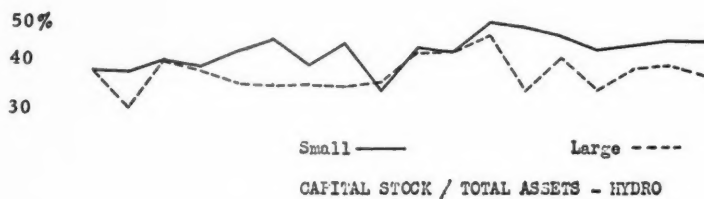


CHART 6

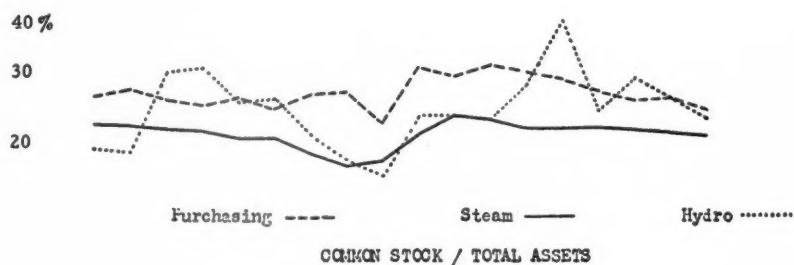


CHART 6

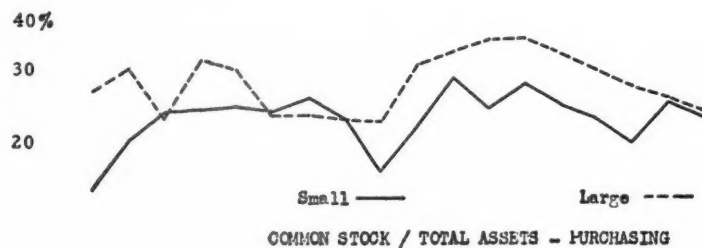


CHART 7

## PUBLIC UTILITIES FORTNIGHTLY

be constructed from the presented data, but the instant presentation demonstrates the weight that earned surplus may have in the long-term debt and net worth portions of the balance sheet.

**C**HARTS A, 1, 2, and 3, Long-term Debt to Total Assets; Charts B, 4, 5, and 6, Capital Stock to Total Assets; Charts C, 7, 8, and 9, Common Stock to Total Assets; Charts D, 10, and 11, Preferred Stock to Total Assets; and Charts E, 12, 13, and 14, Earned Surplus to Total Assets, are summarized in Table I below, which includes type and size characteristics.

In reading the charts no trend or hori-

zontal analysis is intended. Only relationships among the three types of companies or the three sizes of a particular type of company were studied. If the purchasing company were above the steam utility in all but three<sup>11</sup> of the eighteen years from 1939-56, inclusive, the conclusion would be drawn that the purchasing company possessed a higher ratio than the steam, for example, in the area of common stock as a percentage of total assets.

**A**CCORDING to Table I the differences among the three types of companies indicate that the purchasing concern has a high percentage of its assets represented by common stock and earned surplus, both



TABLE I  
CHARACTERISTICS OF FINANCIAL STRUCTURES OF ELECTRIC  
OPERATING COMPANIES  
(Summary of Charts A-E, 1-14, inclusive)

Ratio	Type	Percentage of Total Assets
		Size
Long-term Debt Total Assets	Purchasing had lowest; Hydro, mid-position; Steam, highest.	Purchasing: Only large pur- chasing consistently used long-term debt. Steam: No effect. Hydro: Large greater than Small.
Capital Stock Total Assets	Hydro greater than either Purchasing or Steam.	Purchasing: Large greater than Small. Steam: No effect. Hydro: Since 1948 Small great- er than Large.
Common Stock Total Assets	Purchasing greater than Steam	Purchasing: Generally, Large greater than Small. Steam: No effect. Hydro: Small greater than Large.
Preferred Stock Total Assets	Only Steam showed preferred stock.	Purchasing: No median figures for preferred stock. Steam: Only Large consistently used preferred stock; for last three years Large greater than Small. Hydro: Only Large consistently used preferred stock.
Earned Surplus Total Assets	Purchasing greater than Steam or Hydro.	Purchasing: Since 1944 Small greater than Large. Steam: Since 1948 Small great- er than Large. Hydro: Small greater than Large.

## COST OF CAPITAL AND THE CAPITAL STRUCTURE

net worth accounts; the steam company secures the greatest percentage of its capital from long-term debt, and makes most general use of preferred stock; while the hydro utility employs the greatest amount of capital stock—including common, preferred, and premiums—in its financial structure.

A scrutiny of Charts 1-14 demonstrates that size has more effect with the purchasing type of company than with the generating concerns. The large purchasing company with a heavier industrial and commercial load and possibly some generating equipment—probably having been a generating company until demand outran its facilities—has many of the characteristics of the generating utility with long-term debt, great amount of common stock, and little earned surplus.

The common attribute of the small companies for each of the three types—purchasing, steam, and hydro—is the presence of greater earned surplus accounts, verifying their preference for internal funds.

**A**MONG the steam companies size has little weight upon the long-term debt and equity structure, except that the large company makes use of preferred stock.

For the hydro companies the capital structure of the small concern is outstanding because of the weight given to common stock and earned surplus, whereas, the large hydro company is distinguished by the amount of long-term debt and preferred stock within its balance sheet.

In 1956 for the entire electric power industry in the United States, as a percentage of total assets, not as a percentage of total long-term debt, capital stock, and surplus, the capital structure appeared as follows:

TABLE II  
COMMON SIZE BALANCE SHEET FOR  
PRIVATE ELECTRIC INDUSTRY IN THE  
UNITED STATES, 1956  
Liability and Net Worth Sections as a Percentage  
of Total Assets

Long-term Debt . . . . .	45.7%
Common Stock . . . . .	21.7
Preferred Stock . . . . .	11.1
Premiums, Etc. . . . .	2.8
Earned Surplus . . . . .	7.2
Capital Surplus . . . . .	1.
Other Liabilities and Reserves . . . . .	10.5

*Source*, Federal Power Commission, "Statistics of Electric Utilities in the United States," 1956, p. xxxi.

For that same year, 1956, Table III

	Purchasing	Steam	Hydro
Long-term Debt . . . . .	28.6%	44.2	41.2
Common Stock . . . . .	24.7	21.9	23.6
Preferred Stock . . . . .	...	11.4	9.9
Total Capital Stock (Including Premiums) . . . . .	34.6	34.6	39.0
Earned Surplus . . . . .	13.0	8.1	6.8

*Source*, "A Financial Ratio Analysis of Electric Power Companies," by Franklin H. Cook, in process of publication, Bureau of Business Research, College of Business Administration, The Pennsylvania State University.

shows the capital structure as a percentage of total assets, based upon medians, for the purchasing, steam, and hydro operating companies that secure their operating revenue solely from the sale of electricity. Note how the characteristics of the companies indicated by Charts A, B, C, D, and E are verified in Table III for 1956: that the purchasing company has a great percentage of common stock and earned surplus in comparison with the other types of utilities; the steam concern, heavy long-term debt; the hydro enterprise, large amounts of capital stock outstanding, comprising common, preferred, and premiums.

**T**HE figures on the charts and Table III are percentages of total assets. The

## PUBLIC UTILITIES FORTNIGHTLY

total assets for the three types of companies differ greatly. For example, in 1956 the investment in total utility plant for every dollar of operating revenue for the purchasing company showed \$2.40; the steam, \$4.20; and the hydro, \$6.30. Quantitatively the steam company has more capital stock outstanding than does the purchasing concern, for although each shows 34.6 per cent in Table III, the total asset figure for the steam utility is almost twice that for the purchasing company.

By analyzing the financial structure as a percentage of total assets rather than as a percentage of external long-term capital, more information is presented about the financial condition of the utility, and new relationships are uncovered. For example,

if Table III were reduced to the common designation of long-term debt, preferred stock, and common stock, the external capital sources, the ratios would appear as follows:

	Purchasing	Steam	Hydro
Long-term Debt .....	54%	57%	55%
Preferred Stock .....		15	13
Common Stock .....	46	28	32

These ratios do not show the peculiar financing of the purchasing company, nor the relationship between net worth and long-term debt.

**T**ABLE IV (page 831) relative to the financial structure of the three types of electric power companies, purchasing, steam, and hydro, classified according to



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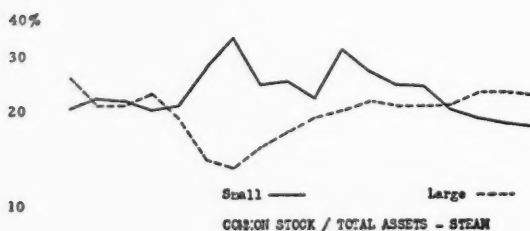


CHART 8

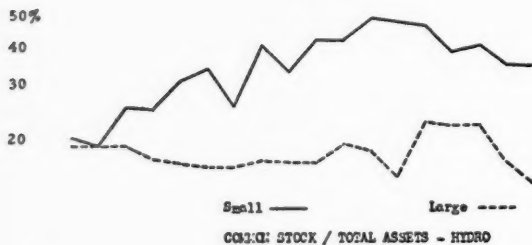


CHART 9



## COST OF CAPITAL AND THE CAPITAL STRUCTURE

size, contains a convenient starting point for determining the ideal financial pattern for a company fitting into these categories.

However, these norms do not constitute the ideal financial structure for a particular company. The financial structure of a specific concern should be ideal for that type of company at that time and for the purposes desired, whether it be seeking additional capital or to serve as a guide for ascertaining a fair return in the future.

### Considerations to Weigh

**F**ACTORS to be considered in moving from the norm to the ideal capital structure for a particular utility are environmental, those conditions with which every business must contend in the community; the present status of the company; and the factors under the control of management. The ideal financial structure for a specific company will have to give the proper weight to the components of the above factors.

In the main environmental factors are

matters which cannot be changed, but over a period of time the management of a utility may modify them or adapt the company to them—realizing the highest potential from the material available. These factors are geographic area, whether it is desert, industrial, urban, or possessing opposite characteristics; economy of the area, the number of potential customers, saturation of appliances and electricity using devices, whether the economy is expanding or declining; political climate, whether public ownership is advocated, and whether the regulatory commission is sympathetic with the company's need for expansion capital; sources of revenue, whether the area is primarily residential or industrial, and the character of each; the fluctuation of earnings, does the residential or industrial load fluctuate, is the industry seasonal, is the residential demand heavy with air conditioning, or a resort area; and availability and cost of money, can the utility get its money from present stockholders, life insurance companies, pension funds, the open market?

TABLE IV

#### FINANCIAL STRUCTURE FOR ELECTRIC OPERATING COMPANIES, 1956

Medians—Percentage of Total Assets			
<i>Purchasing</i>		<i>Small</i>	<i>Large</i>
Long-term Debt .....		21.6%	36.8%
Common Stock .....	23.4	24.7	
Preferred Stock .....	...	...	
Total Capital Stock,			
Including Premiums ..	25.8	39.	
Earned Surplus .....	23.6	8.7	
<i>Steam</i>			
Long-term Debt .....	43.1	45.3	
Common Stock .....	18.1	22.7	
Preferred Stock .....	9.	13.7	
Total Capital Stock,			
Including Premiums ...	33.3	37.5	
Earned Surplus .....	11.4	6.6	
<i>Hydro</i>			
Long-term Debt .....	41.2	43.1	
Common Stock .....	35.3	14.5	
Preferred Stock .....	...	13.6	
Total Capital Stock,			
Including Premiums ...	45.8	37.	
Earned Surplus .....	6.9	4.8	

**C**OMPANY factors would include those characteristics which management found in that particular company and represent the tools with which management has to work in the environment outlined in the previous paragraph.

These individual company elements would be the size of the company, a large steam concern on the low side of the median operating revenue for the steam utilities would tend to have a greater allowance for earned surplus and less preferred stock; plant investment, whether the plant investment is too high or too low in terms of operating revenue; the age of the plant,

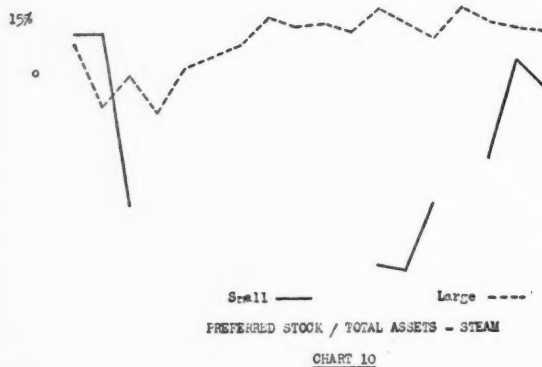
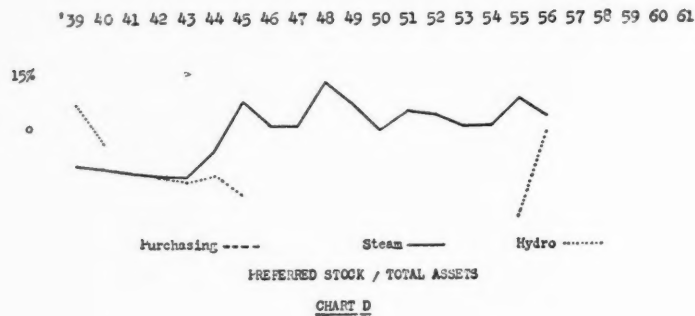
## PUBLIC UTILITIES FORTNIGHTLY

as indicated by depreciation reserves; the unused capacity in the plant, indicating whether or not there has been overexpansion, and an aid in ascertaining when new plant will be required in the future; urgency of construction program; size of construction program and time required for completion; need for capital in the future; internal funds available; and cleanliness of the balance sheet, whether or not there are a number of deferred items to be amortized, and the book value of assets relative to their market value and age; finally, the nature of the management, does it tend to do the daily job, each individual looking forward to his own retirement, or does it attempt to maximize

the income that it can obtain from its environment and minimize costs—is it dynamic, constantly looking and planning ahead?

**F**ACTORS for which an individual management may be responsible are the earnings on the plant, are they going downward, which is the present trend,<sup>12</sup> or are they maintaining an even level; what will the quantity of earnings be in the short-run and in the long-run; the average cost or selling price per kilowatt-hour; the average consumption per customer; the operating ratio; the times bond interest is earned, and the price-earnings ratio are items to be considered in evaluating

8



## COST OF CAPITAL AND THE CAPITAL STRUCTURE

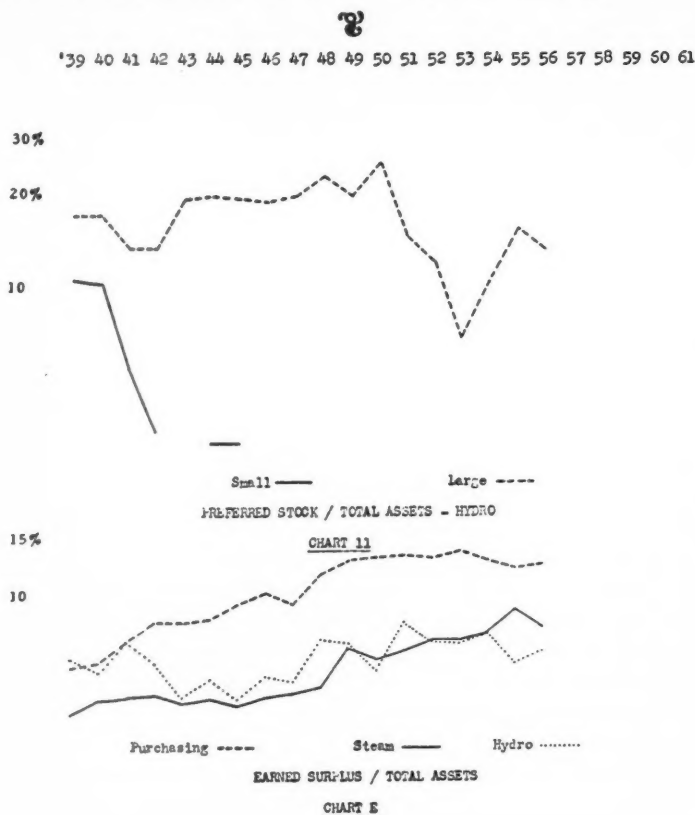
the responsibility of the management for a particular financial structure.<sup>13</sup>

**I**N summary, the ideal financial structure for an individual electric power company can be approximated by using Table IV which exhibits typical financial patterns for three types of electric power companies, subdivided on the basis of size. Each structure is a composite of medians; it is not the financial pattern of a median company. These structures represent the present position of private electric operating companies in the United States. They may or may not be desirable under today's economy; certainly, they are not an in-

fallible guide for the future. However, they do serve as a starting point for the construction of an ideal financial structure. Once the purpose of the capitalization is ascertained, whether for the issuance of new securities or for rate-making purposes, the ideal financial pattern for an individual company can be formulated by modifying the existing norm in the light of environmental, plant, and management factors.

### Implications within Differing Financial Structures

**T**RADING on the equity is a well-known practice among economists and in-



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vestment counselors. It is based upon the principle of using low-cost capital to the benefit of the stockholders. However, by examining the capital structure and income and expense statement of the small purchasing concern, Illustration II (this page), and the large steam company, Illustration I below, constructed upon medians for 1956, the phenomena of maintaining a large earned surplus account in a utility with steady earnings is observed:

### ILLUSTRATION I

#### *Capital Structure—Large Steam Company* 1956

Long-term Debt .....	\$105,200,000 (45.3%)
Preferred Stock .....	32,000,000 (23.7)
Common Stock .....	52,600,000 (22.7)
Premiums .....	2,900,000 (1.1)
Earned Surplus .....	15,400,000 (6.6)
Total Assets .....	\$233,000,000

#### *Income and Earned Surplus Statement—1956*

	1956	20% Decrease
Operating Revenue ...	\$68,600,000	54,880,000
Total Operating Revenue Deductions	52,600,000	43,500,000
Net Operating Revenue	\$16,000,000	11,380,000
Distribution:		
Interest Expense ...	3,700,000	3,700,000
Preferred Dividends	1,400,000	1,400,000
Common Dividends	8,050,000 (74%)	
Earned Surplus ....	2,850,000	

In the capital structure portion of Illustration I, long-term debt and the equity structure are designated as a percentage of total assets on the right-hand column. The right-hand column of the Income and Earned Surplus Statement illustrates the nature of the revenue and total operating revenue deductions when a 20 per cent decrease in revenues is incurred. To obtain this figure depreciation is entered at the regular amount, but all variable expenses, including taxes, were reduced by 20 per cent. In 1956 the median pay-out ratio for the large steam company was 74 per cent. Note that as a result of the 20 per cent decline this percentage cannot be maintained.

### ILLUSTRATION II

#### *Capital Structure—Small Purchasing Company* 1956

Long-term Debt .....	\$224,000 (21%)
Common Stock .....	250,000 (23.4)
Premiums .....	25,000 (2.3)
Earned Surplus .....	251,000 (23.6)
Total Assets .....	\$1,065,000

#### *Income and Earned Surplus Statement—1956*

	1956	20% Decrease
Operating Revenue .....	\$500,000	400,000
Total Operating Revenue Deductions	438,000	357,400
Net Operating Revenue	\$62,000	42,600
Distribution:		
Interest Expense ....	2,000	2,000
Common Dividends ..	12,000 (20%)	12,000
Earned Surplus .....	48,000	28,600

ALTHOUGH the capital structures in Illustrations I and II would appear to be about the same when debt and equity ratios are considered only—45 per cent debt and 55 per cent equity for the small; 55 per cent debt and 45 per cent equity for the large—yet there are three significant differences. First, the outside debt and equity capital for the large company totals almost 83 per cent of the total assets, to about 47 per cent for the small purchasing concern. Secondly, the large steam utility when measured as a percentage of total assets has over twice as much debt outstanding as the small purchasing enterprise. Thirdly, the small purchasing company has an earned surplus account approximately equal to that of its common stock account.

The straightforward method of accumulation of earned surplus by the small purchasing enterprise is vividly shown in the income and earned surplus statements for 1956, wherein the large steam company pays out 74 per cent of sums available for common dividends, and the small purchasing utility, 20 per cent.

THE financial structure of the small purchasing company is not presently

## COST OF CAPITAL AND THE CAPITAL STRUCTURE

feasible for the large steam concern. The capitalizations of both the small purchasing enterprise and the large steam utility are a result of their position in the economy. The small company unable to secure long-term capital from external sources and fearful of outside control has resorted to internal financing<sup>14</sup> by the accumulation of large earned surplus accounts.

On the other hand, the large steam concern, upon which rests the burden of meeting the electric demands of a growing economy, has had to resort to outside capital for its needs; one device to make common stock attractive to the public is to have a high pay-out ratio. Such a policy,

nevertheless, makes the accumulation of an earned surplus account difficult. However, if earnings warrant, a large steam company can increase its pay-out ratio, raising the yield, which will increase the market price of its common stock; then common stock can be issued, which will permit the issuance of more long-term debt, and so on until all capital needs are fulfilled.

THE foregoing nonchalant sentence describing the attraction of capital by a large utility with a growing demand is not meant to imply irresponsibility in such financing. The typical operating state-

8

'39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61

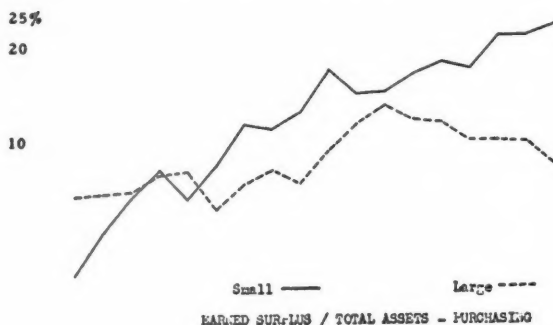


CHART 12

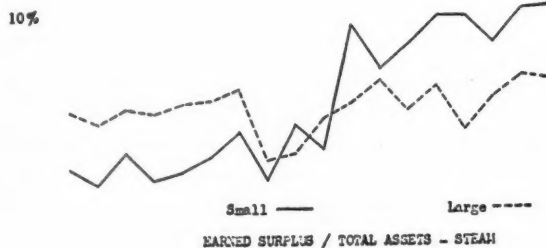


CHART 13

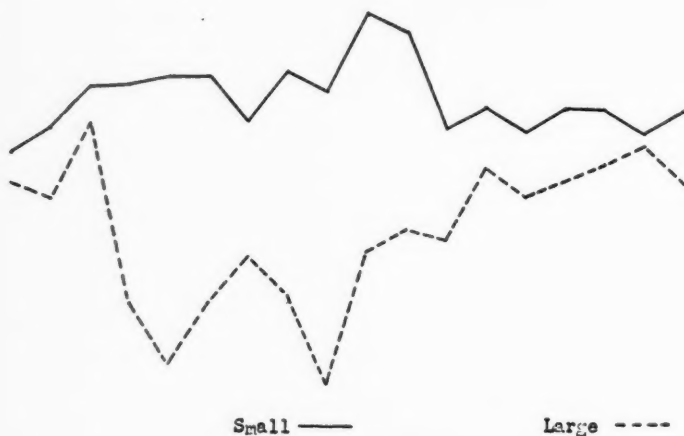


## PUBLIC UTILITIES FORTNIGHTLY



'39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61

10%



Small — Large ----  
EARNED SURPLUS / TOTAL ASSETS - HYDRO

CHART 14

8

ments for the two companies, small purchasing and large steam, Illustrations I and II, demonstrate in the right columns the effect of a 20 per cent drop in revenues. Naturally, because of the capital structure of the large steam company, the effect is more disastrous than for the small purchasing utility with its large earned surplus account.

However, when the depression of 1929-32 saw the gross national product drop 43.8 per cent, electric industry's revenues declined, 5.7 per cent; net income, 13.8 per cent. In 1937-38 the gross national

chasing utility with its large earned surplus account.

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product declined 23 per cent, but the electric power companies' revenues barely dropped at all; and net earnings were down only 4.7 per cent.<sup>15</sup> Therefore, in a depression such as 1929 and 1937 no 20 per cent decline would be anticipated for the industry as a whole. A company with a high industrial load might experience such a calamity. In the depressions of 1929 and 1937 costs dropped as the gross national product declined. With the large public debt and the pressure of inflationary forces in the government there is the possibility of runaway inflation.

**G**RADUAL inflation is supposed to be good for the economy, but the last recession of 1957-58 recognized that it was traveling so fast that when the gross national product fell off, costs continued to rise!

A depression is not so disastrous when both revenues and costs decrease, but when revenues decline and expenses are pushed upward by inflation the utility unable to move its revenues upward, as an industry in the unregulated competitive field, would be caught between the squeeze of falling revenues and mounting costs. In this situation the financial structure of the small purchasing company with its great percentage of net worth to assets would give it more time and freedom to maneuver pending a rate increase than that possessed by the large generating utilities.

### Conclusions

**F**OR a public utility the nature of its financial structure is more important when new additional capital is sought than when replacement funds are desired. Management, underwriters, and government

regulatory commissions are interested in the proportionate elements of the fixed liability and net worth sections of its balance sheet. However, the utility commission attempting to determine a fair return is particularly concerned about a capital structure that will enable a company to attract capital. Most of the state commissions in fixing the fair return employ an ideal capital structure, rather than the actual financial pattern of the company being regulated.

In its "return sufficient to attract capital" standard the Bluefield decision sets up the comparative standard—comparison with a company "attended by corresponding risks and uncertainties." A very nice comparison can be made on a functional basis with companies of the same type—purchasing, steam, and hydro—and size.

**G**ENERALLY, these three types of companies differ in that as a percentage of total assets the purchasing utility leans most heavily upon common stock and earned surplus; the steam, upon long-term debt; and the hydro, upon common, preferred stock, and premiums.

In respect to size all of the small concerns have heavy earned surplus accounts, whereas the generating companies and the large purchasing utility have more long-term debt and common stock outstanding, and the large steam and hydro companies add preferred stock to their capital structure.

Reasoning from a norm an ideal capital structure should be constructed for a particular utility in the light of environment, plant, and management factors.

The financial structures of the utility enterprises are molded by economic pres-

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tures upon them. The small concern because of its fear of external control, and the high cost of capital in small lots, relies upon internal financing. The large generating utilities, coerced into expanding facilities to meet growing demands, have resorted to high dividend pay-out policies to attract capital, which presently negates the accumulation of large earned surplus accounts.

As a result of past depressions when both revenues and costs fell, electric power companies, bolstered by residential sales, have not suffered as severe decline in earnings as the general economy. However, any concern with a government-regulated income, such as electric operating companies, would fare badly in a major depression in which a decline in revenues was accompanied by a rise in

costs; such evidence was present in the recession of 1957-58. For years the utilities have been struggling with this problem under gradual inflation. But as the tempo of inflation increases the utilities unable to raise their rates as do unregulated businesses, may find themselves facing extinction pending action by a dilatory regulatory commission. The large generating companies with the small earned surplus accounts are in the most perilous position.

The contemplation of quick death by runaway inflation for a public utility is a possibility; but a greater probability is that its terminal condition may be forewarned by an inability to attract capital. At the moment, because of the inflation pressure, life insurance companies are losing interest in the debt obligations of electric power companies.<sup>16</sup>



### Footnotes

<sup>1</sup> "Public Utility Rate Regulation," by Jones and Miller, *Virginia Law Review*, 43:7, p. 1034, November, 1957.

<sup>2</sup> Dun's Review and Modern Industry, 71:2, p. 19; February, 1958.

<sup>3</sup> "Financial Policy of Corporations," by A. S. Dewing, Vol. I, p. 467, fifth edition, 1953.

<sup>4</sup> "Public Utilities as Investments from the Analyst's Viewpoint," by Marvin Chandler, *Land Economics*, 30:237-47; August, 1954.

<sup>5</sup> Federal Power Commission v. Hope Nat. Gas Co. (1944) 320 US 591, 51 PUR NS 193.

<sup>6</sup> Similarly, the term "affected with a public interest" as used in *Munn v. Illinois* (1877) 94 US 113, was used synonymously with "public utility," until the latter was given a restricted definition in *Nebbia v. New York* (1934) 291 US 502, 2 PUR NS 337. Likewise, the phrase in the Constitution, "commerce among the states," was interpreted as "inter-state commerce," a far more limited term as the court pointed out in *United States v. Underwriters Association* (1944) 322 US 533.

<sup>7</sup> "Cost of Capital in Public Utilities," by L. W. Thatcher, *Land Economics*, 30:2, 85-111, p. 87, May, 1954.

<sup>8</sup> Generally favored by Arizona, Arkansas, Colorado, and Connecticut. "Cost of Capital in Public Utility Rate Regulation," by J. R. Rose, *Virginia*

*Law Review*, 43:7, p. 1087, November, 1957.

<sup>9</sup> Generally favored by District of Columbia, Illinois, Kentucky, Louisiana, Maryland, Michigan, New Hampshire, New Jersey, New Mexico, North Carolina, Ohio, Pennsylvania, Utah, Vermont, Wisconsin, and Massachusetts. *Ibid.*, p. 1085-5.

<sup>10</sup> "Significant Ratios in the Electric Power Industry," by Franklin H. Cook, Bureau of Business Research, College of Business Administration, The Pennsylvania State University, 1958.

<sup>11</sup> This is an arbitrary test. Theoretically, a relationship existing in over half of the years analyzed would indicate a tendency that should be recognized.

<sup>12</sup> Franklin H. Cook, *loc. cit.*, Chart D, p. 16.

<sup>13</sup> "Capitalization Ratios and the SEC Inquiry," by Owen Ely, PUBLIC UTILITIES FORTNIGHTLY, Vol. 58, No. 12, December 6, 1956, p. 913; Dewing, *loc. cit.*; Chandler, *loc. cit.*

<sup>14</sup> "Equity Financing for the Small Firm," by R. A. Weaver, Jr., *Harvard Business Review*, 34:91, 96-101; March, 1956.

<sup>15</sup> "Tenuous Yardstick: Industrial Demand Is but One Measure of Utility Prospects," *Barron's*, 34:17, 18, March 8, 1954.

<sup>16</sup> "Some New Facts and Ideas on Utility Financing," by Fergus J. McDiarmid, PUBLIC UTILITIES FORTNIGHTLY, Vol. 62, No. 10, November 6, 1958, p. 729.

# The Undiscovered, Unsung *Utility Director . . .*

Strangely, three-fourths of the directors on the average board are outsiders—not in telephones, gas, or power at all. There is an interesting story about how they got there. And another story that might be told is what they do for the company—and the public.

By JAMES H. COLLINS\*

**W**HAT is a utility director? What does he do? Is it nice work? How does he get it? Let us ask the Man-in-the-Street, that repository of casual information, representing public opinion—we always ask him when stumped by antics in the economy.

If you sit on the board, his notions may startle you.

"Directors? Just a lot of stuffed shirts! They sit around a big table, after lunch on the company, smoke company cigars,

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and get fifty or a hundred dollars for every meeting—in gold!"

**H**E may believe that directors are relatives, or appointed for political reasons, or sent from Wall Street.

The fact is, he does not know anything about directors, because they are the undiscovered men of the utility business.

Since steak went over a dollar, the Man-in-the-Street has become acquainted with a whole cast of utility characters. The customers, who placidly took their electricity and gas and kept quiet until rates began to rise. The state commissioners who determine rates. The stockholders, widows and orphans who had risked their all in utility shares, and now clamored for dividends. The engineers who built pipelines and steam plants; the scientists in laboratories who came up with transistors, and began putting the whole country on dials; the public ownership Johnnies, activated by utility problems, who assured the Man-in-the-Street that all would be well if the city just took over the whole works . . .

This was new to him. "You know," he said, "they might have something there!"



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But he had heard nothing about utility directors. In this cast of characters they were off stage. He had no idea of the changes that were taking place around the big board tables.

Today, utility management is awake to the fact that more popular knowledge about directors, who they are, what they do, how they get on the board, would be a good thing for everybody.

### A Look at the Past

ONCE upon a time—at the turn of the century—utility services were largely local, and pretty much haphazard. The cities were served by sizable corporations, but the towns had small gas, power, and telephone companies, started of necessity by local people, merchants, lawyers, bankers who had little technical knowledge. Equipment was often inadequate, bankruptcies were common, voltages and thermal standards were variegated. Even Mother Bell had still to develop toll business. Thousands of small independent telephone enterprises struggled under difficulties. There was no rainbow of promise in the sky that they would become an indispensable part of a vast national communications system.

For that matter, the United States itself was still local. There were no national brands of cigarettes or dentifrices, nor any national advertising to plug them. Presently the country was to be linked up by cheap magazines, movies, Ford cars, a world war, radio, Madison Avenue. But for the time being it slumbered in the first chapter of Genesis—corporately speaking.

THE groundwork for utilities as we know them today—one-fourth of all

capital invested in American industry—was laid by outsiders, mostly financial men and lawyers. They understood money, and how to apply its power. They saw possibilities in corporate organization that were beyond the vision of the individual businessman of that day.

Go back into the history of the great utility corporations of today, and there will generally be found a pleasant stranger who one afternoon looked in at the office of the local gas or power company, where the manager was worrying about his payroll. This was one of a conglomeration of small concerns, with a few thousand—perhaps only hundreds—of meters, under-equipped and -financed, run by men with little technical knowledge, often in competition with other small utilities in the same town. They had been started by local businessmen who had no conception of the kind of service that would be demanded by a country rapidly becoming industrialized.

The stranger was well-dressed, mannerly, a city man. He sat down and chatted, seemed to understand gas, electricity; asked discreet questions about the company, plant, customers, revenue, competition.

Suppose the company had capital to install more modern equipment, extend its lines to take in more customers? Maybe take in competition? Have a financial structure that would eliminate payroll worries, pay off debts, reduce interest charges, make some money?

JUST talking about things as they were, and as they might be, the stranger asked if there was any likelihood that the company could be purchased, what the manager's idea was about price? How



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would the owners, the local merchants, and professional men, feel about selling? They were probably discouraged by the realities of a business that had looked so attractive at the start, but which they now admitted they should never have gone into. Talking price, the pleasant stranger suggested liberal figures—if there was to be a price at all, it should be high enough to make everybody feel happy.

For weeks this inquiring stranger looked in on managers of local utility companies in the same region, discussing this and that, quietly getting options. As in assembling a piece of real estate from many owners, it was policy to avoid letting out any ideas about gas or power companies being valuable.

### Time of Mergers and Trusts

**T**HEN came the day when options were exercised, a new corporation took over, obsolete plants were scrapped, modern equipment installed at points where the region could be best served, from engineering and cost angles, and management was transferred to New York, or another financial and engineering city.

It was here that directors came in.

Not only were utilities being brought together for a new age, but other indus-

tries—most notably United States Steel. It was the era of the "Trusts," corporation business, in which industries plagued by cutthroat competition, obsolescence, lack of capital, aging of individual owners, were brought together by strangers from the city, for greater capacity, more efficient operation, and sometimes control of prices. There were various legal devices available then which would be horrifying today. Regulation of utilities was still largely in the future.

As a footnote to history, one of the earliest mergers was effected in the mid-1890's, before the trust era proper. It set a pattern for today.

**C**RACKER bakers had got into a pickle typical of the times. Crackers were round, about the size of a silver dollar, came to the grocery store in bulk, in a barrel. The grocer took the top off, customers around the stove helped themselves, cutting off a slice of cheese; the cracker barrel was a favorite siesta spot for the grocer's cat.

Crackers were baked by local concerns, competition had destroyed profit, bakeries were getting old, and likewise the owners. In this situation an attorney named A. W. Green organized a national



**Q** "NOWADAYS, utility directors are a different breed of cats. Scanning names on boards, one finds men whose business interests and experience lie in every other field except telephones, power, and gas. 'Rich man, poor man, beggar man, chief . . .' There are manufacturers of everything from heavy machinery to better mousetraps, and of everything used in industry—chemicals, metals, cement, foodstuffs, fuels. Trade is represented by retailers, wholesalers, exporters, hotel and theater owners, real estate operators. Bankers, lawyers, doctors, even an occasional clergyman, engineers, many consultants, college presidents; publishers, railroaders, ranchers, farmers; officers of local government, community and trade associations."

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corporation that bought out the bakers, modernized the best plants, scrapped the others, and prepared the way for the supermarket of today. The corporation was called the National Biscuit Company. The cracker barrel disappeared. Crackers became square. They were given the English name. They were put up in small consumer packages, possibly the first bulk food to be packaged—it would be years and years before the grocer's round of cheese was packaged. And they were nationally advertised, in newspapers. Magazines were just beginning to build circulation at popular prices, and as yet had little advertising.

These were all innovations of quiet, meticulous Mr. Green, the prototype of a completely new manufacturing and distributing system, adequate for the new America that, under President McKinley, was to be industrialized. Mr. Green either coined or approved the punning "Uneeda Biscuit," still seen on the package that bears an early printer's mark, taken from one of his rare books—Mr. Green had also been a librarian.

### Utility Directors—Then and Now

THE first utility directors were absentees, like the first management of the newly created corporations. They were mostly officers and stockholders. The operations of the outlying companies formed from local ones were directed from cities where the money, engineering, and law were found. Standard systems of accounting, purchasing, cost control, rates, and so on were needed first of all, and the city men developed them. Local managers adhered to them. Decisions were made by the home office.

Soon, the advantages of the new setup were evident in better service to customers, through improved equipment, and rates began to be reduced, reflecting the economies, while money was made where, apparently, there had been no money.

"What more can they want?" was asked in the home offices when occasional grumbles were heard from townspeople, who went to the local manager with complaints and requests. He had to get in touch with headquarters. Nothing remotely foreshadowing "customer relations" was known. Today, technical-minded utility fellows ask the same question: "What more can they want than good service at reasonable rates? Let these 'relations' take care of themselves."

NOWADAYS, utility directors are a different breed of cats. Scanning names on boards, one finds men whose business interests and experience lie in every other field except telephones, power, and gas. "Rich man, poor man, beggar man, chief . . ."

There are manufacturers of everything from heavy machinery to better mouse-traps, and of everything used in industry—chemicals, metals, cement, foodstuffs, fuels. Trade is represented by retailers, wholesalers, exporters, hotel and theater owners, real estate operators. Bankers, lawyers, doctors, even an occasional clergyman, engineers, many consultants, college presidents; publishers, railroaders, ranchers, farmers; officers of local government, community and trade associations.

The average utility board runs to about a dozen directors. From two to five will be officers of the company, who presumably know gas, power, and telephones. The rest are outsiders, and what they are doing

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### A Director's Functions Are Diverse and Many



"POPULARLY, the president of a utility company is supposed to decide everything, with the assistance of vice presidents. If the service improves, he gets the credit; if rates go up, he is blamed. It would be news to the public that the directors elect him, and other officers, determine their salaries, replace them if necessary, have power to displace them for cause, and could increase their pay checks. Directors also select and elect new men to the board. The directors build the company's plant, and hand it over to the officers to run. . . . The board has authority to buy, sell, lease, or otherwise handle real estate and other property. It looks ahead to community needs, and plans for the future. It declares dividends, is behind applications for rate increases, passes upon contributions to college funds and charities, presents the company's side in tax matters, legislation . . ."



on the board raises some good questions that the public might ask, if it had ever heard enough about directors to be curious.

Why so many outsiders?

Are they picked for prestige—stuffed shirts?

What do they do at those directors' meetings, specifically?

Do officers have the authority over directors, or vice versa?

Almost no outsiders are found as directors of manufacturing or other con-

cerns—the directors of a cracker-baking company will know crackers, having come up in that business.

#### What Does a Board of Directors Do?

ALTHOUGH the public is not asking these questions, it would undoubtedly be interested in answers, if utility management reported some of the board's activities. Especially as the board represents the public's interests.

Beginning with the question, who is in

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charge, the directors or the officers, the directors deal with company policies, and the officers with operations.

Popularly, the president of a utility company is supposed to decide everything, with the assistance of vice presidents. If the service improves, he gets the credit; if rates go up, he is blamed.

It would be news to the public that the directors elect him, and other officers, determine their salaries, replace them if necessary, have power to displace them for cause, and could increase their pay checks. Directors also select and elect new men to the board.

The directors build the company's plant, and hand it over to the officers to run. When the officers find that more plant is needed, more capital, more anything, they report to the directors, who get busy. The board has authority to buy, sell, lease, or otherwise handle real estate and other property. It looks ahead to community needs, and plans for the future. It declares dividends, is behind applications for rate increases, passes upon contributions to college funds and charities, presents the company's side in tax matters, legislation . . .

**D**IRECTORS are chosen from local businessmen because the company must grow with the community. Every kind of business by which the community lives must be taken into account in determining projects and policies. If the community has factories, or is a transportation center, or a tourist region, or grows fruits and vegetables, or is in mining country, there will be leaders in those lines on the board.

And they will be in contact with leaders in other parts of the country.

If there is a movement toward the suburbs, before long there must be exchanges and substations ready to supply service at points of growth—not built in wheat fields that, five years hence, will still be in wheat.

A lot of work is done by directors on committees. Meeting around the big table, they discover problems and projects that call for special investigations. Two or three directors are appointed to obtain information on highly technical matters, and work with engineers and consultants, very often for long periods of time, during which they must master technicalities outside their own business, and find bases for decisions.

### Other Company Boards of Directors

**T**HE same preponderance of outsiders is found on the boards of banks, savings institutions, and life insurance companies, many of which have larger directorates, and wider representation of their communities.

Life insurance boards range up to thirty-five members. The 1,200 insurance companies in this country have 12,000 directors, about three-fourths business leaders in other lines, according to the Institute of Life Insurance. Manufacturers make up the largest percentage, then bank and investment men, attorneys and retailers.

These directors have in charge the \$100 billion investment of 106 million policyholders, and deal with investment, actuarial, and other technical matters involving a great deal of committee work. For regional companies, their boards represent the community, and for national companies there is also territorial representation.

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Financial, insurance, and savings institutions, as well as utilities, need wide experience on their boards. Other business concerns seldom have outsiders on their directorates because management is in the hands of executives who have come up in their particular industries. Large stock owners are apt to be directors.

If a regional manufacturing company gets into difficulties, or fails, its troubles seldom affect the whole community. Employees, creditors, suppliers, and stockholders will be hurt, but the community is still in good health, and the scar soon heals.

**B**UT trouble in a financial institution hurts everybody, and that would be the case if utility service fell short of requirements, or deteriorated through starvation of revenue, or mismanagement, or absolute suspension of service.

For these reasons, utilities and financial institutions have broad directorates, built up on experience through the years, and often the result of troubles, and even knockdown fights. The financial institutions were generally started by aggressive individuals, who practically owned them in their infancy, like life insurance companies. As they grew, and became of more importance to their depositors and policy-

holders, outside businessmen were elected to boards. Sometimes there was a fight, as may be learned by reading accounts of these changes—mostly written by reformers. The Old Guard did not surrender, but died with its boots on; but it was composed of aggressive men, who laid the foundations for the banking and insurance structures of today. They were in harmony with their times.

### A Gas Consolidation

**I**T may be interesting to follow the story of a particular gas consolidation, told by a retired executive.

A group of investment men in the Midwest saw opportunities for making money by purchasing local gas companies, providing adequate financing, and central management. This executive was the pleasant city fellow who went scouting for properties. They got together seven companies, and set up a system by which engineering, financing, accounting, and other details of operation were conducted by the home office. Local managers of the separate companies ran by the rules; it was an efficient system, the gas and service were improved, more territory taken in, better equipment led to economies, rates were lowered, money was made . . .



**Q** "HOW are the business abilities and services of utility directors to be put before the public? There are difficulties. Their work is seldom newsworthy. They plod through months of committee investigations, passing on technicalities, making reports and decisions, and eventually their labors ripen into a new plant. . . . These businessmen are quite likely to be publicity shy. They have seen puffery backfire. The success story that used to have such reader interest is under a ban. Generally, the list of directors, with their business connections, is printed in annual reports of utility companies, and in the periodical statements of condition published in newspapers by financial institutions."



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"What more could they want?"

But presently there were grumbles from the towns. Customers, local officials, and leaders raised questions, had complaints, could not get direct action—such matters had to be referred to the home office.

The old cry was raised that money was being taken from the towns. That cry has been raised even against the clowns and aerialists of the circus. It was raised against life insurance companies, and led to their investing in local building and real estate.

**T**HE various operating companies had boards made up of men from the central organization. To quiet the clamor, local managers were given greater freedom in settling grievances, and local business leaders were added to the separate boards.

These local directors were splendid new brooms from the start. Sitting around the big table, at monthly meetings, they studied the gas business, tutored by gas men, and applied to it the yardsticks that had proved reliable in their own businesses.

For example, they knew that it was necessary to have a good product. Gas was the product of a gas company. To make good gas, at favorable costs, the most advanced equipment was needed. Such equipment cost money.

Among the new directors there were bankers. They knew their way around LaSalle street. The original companies had been financed by local people, but when they were bought out, there was no local money available. It had to be found in the financial centers. The bank men on the board understood angles, and commanded the respect of other bankers, and underwriters. They taught the gas men financing.

**T**HIS state of affairs brought the holding company into existence, a device for facilitating the financing of the many consolidations of gas, power, and transit companies that were being managed by financiers, engineers, and other specialists. More and more money was needed. The holding company enlarged the basis of credit. It derived dividends from its investments in the operating companies. The advantages of having outside businessmen on directorates were increased by this corporate setup.

Some abuses crept into holding companies, but on the whole they were sound management mechanisms, and their securities were well-regarded. But the crash of 1929 destroyed the broad market for their securities, and the Roosevelt administration started a drive to put them out of business. An act was passed against them in 1935, and they disappeared, except for regional holding companies with subsidiaries forming an integrated operating group. These were permitted by the act.

The Holding Company Act stimulated the election of more outside businessmen to the boards of subsidiary companies, because it forced them to be free of central management control. The policy soon became universal.

### How Publicize Utility Directors?

**H**ow are the business abilities and services of utility directors to be put before the public?

There are difficulties.

Their work is seldom newsworthy. They plod through months of committee investigations, passing on technicalities, making reports and decisions, and eventually their labors ripen into a new plant.

## THE UNDISCOVERED, UNSUNG UTILITY DIRECTOR . . .

"So what?" ask the newsmen. It is just another utility dam or pipeline, in bustling community expansion.

These businessmen are quite likely to be publicity shy. They have seen puffery backfire.

The success story that used to have such reader interest is under a ban.

Generally, the list of directors, with their business connections, is printed in annual reports of utility companies, and in the periodical statements of condition published in newspapers by financial institutions. Also, lately, the board of directors is being featured in employee magazines.

**T**HERE is a trend toward listing each director's business and community interests under his name, as is done by the Rochester Gas & Electric Corporation, in its annual report.

This company has a board of fourteen, including the president, chairman of the board, and two other officers, all of whom are directors and trustees of other concerns.

All told, these directors have nearly fifty other directorships, and are also trustees for nearly twenty community institutions. Among the names of companies in which they are executives are: Eastman Kodak Company, Bausch & Lomb Optical Company, Taylor Instrument Companies, Sodas Foods, Inc., Todd Division of the Burroughs Corporation, Rochester Telephone Corporation, and various local financial institutions. They are also directors of the Edison Electric Institute, American Gas Association, University of Rochester, Associated Industries of New York State, Atomic Power Development Associates, Rochester Institute of Tech-

nology, World Power Conference, and other local, regional, state, and national organizations. Trusteeships are held in educational, financial, and community organizations.

### Grass-roots Directors' Program

**A** NOVEL idea in board meetings, undoubtedly capable of development for relations purposes, is the regional session of the New York Telephone Company's directorate.

This company's board meets monthly in New York city, but one of its sessions is an all-day affair, and another is held in an upstate district served by the company. The latter is a grass-roots school class, designed to educate the directors in the realities of the telephone business, by bringing them in contact with regional managers. It winds up with a dinner, for business leaders of the area, at which the board is host.

This board has sixteen members, of whom a dozen are laymen, financiers, educators, attorneys, manufacturers, and one fruit grower who is active in state agricultural interests. These outsiders are amply briefed on the telephone business at their regular meetings.

But the upstate session is "live."

At one typical upstate meeting the morning was taken up by a three-part program in which department managers demonstrated their teamwork.

The district plant superintendent explained how, with a backlog of waiting subscribers, and a relief plant job under way, all departments co-operated to make maximum use of available equipment.

The company had an employment problem, and the district traffic superintendent

## PUBLIC UTILITIES FORTNIGHTLY

showed how all departments worked together to recruit new operators and other employees.

The district commercial manager explained how employees and pensioners were briefed to act as ambassadors for the company.

Then, a business office was visited, to show how employees in contact with customers co-operated in the new sales activities of the telephone business, calling attention to color phones, extensions, and conveniences.

Finally, a group of traffic women held a regular employee meeting in which facts were presented on finances, earnings, and the company economy—this for the purpose of giving employees information with which to answer customer questions.

The theme for the whole day was economics.

**I**N the afternoon the board met an audience of community leaders from the district roundabout, and at the dinner that night these leaders heard an address by Keith S. McHugh, president of the company, who outlined the critical situation in which the company operates today.

Beginning with the contrast between American telephone service, and that in other lands, he compared our free enterprise with government-controlled systems. This country has far outstripped all others because it has freedom to plan for the future. Obviously, that freedom must be protected. It is the freedom that enables business leaders (of the kind listening to him) to bring about growth in their own enterprises.

He told the story of Walter Gifford's decision to continue research during five

depression years, when the company was not earning its usual dividend. This foresight and confidence paid off in the war years that followed.

New equipment was shown, the wire spring relay, the transistor, the amplifiers for the transatlantic telephone cable, and things to come, like the solar battery, picture phone, and electronic central office.

Difficulties of the phenomenal postwar demand for service were outlined. While the company has built nearly \$2 billion worth of new plant in these years, it has not been able to finance it, as most business is financed, out of retained earnings. There have been no retained earnings. Proposals being made for financial freedom to meet these demands were explained.

**U**P to war's end, utility companies generally operated in a good climate, with favorable public opinion that made earnings adequate for growth, and dividends.

But with rising costs, and superficial publicity given applications for rate increases, there grew up a popular notion that the way to keep rates down was to keep earnings down.

This popular "fix" is at the bottom of many utility troubles today.

It has to be dispelled by giving the public more information about utilities—how they are run, how they grow, technologically as well as in area.

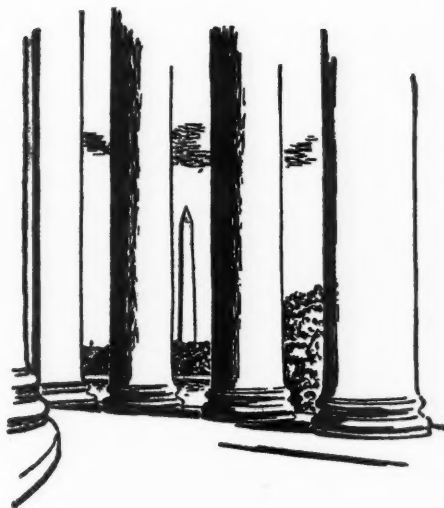
What is a utility director?

What does he do?

Is it nice work?

This grass-roots directors' meeting might be one way to spread better information.

## Washington and the Utilities



### *Rivers and Harbors Congress Meets Again*

THE nation's capital got its annual dose of water pressure when the forty-sixth National Rivers and Harbors Congress convened in Washington, D. C., toward the end of May, to ventilate arguments and speeches in favor of more appropriations for conservation, reclamation, navigation, irrigation, recreation, and incidental public works improvements, including hydroelectric development. The administration is still trying to hold the line on a balanced budget, or a nearly balanced budget, but the pressure is on.

It started early this year when the national convention of the rural electric and telephone co-ops met in the nation's capital, 7,000 strong, to whoop it up for more money and less purse-string control for the Rural Electrification Administration. Congress dutifully followed the proposal to separate REA from the financial supervision of Secretary of Agriculture Benson. And only the slim margin of four Democratic votes in the House sustained President Eisenhower's veto. It is still a good bet that REA will get more

money than requested in the Eisenhower budget. Congress has followed such a pattern for the past four years.

The second trial heat is still in the works. That would be the move to give the Tennessee Valley Authority unlimited discretion in issuing up to \$750 million in revenue bonds for financing its own expansion. This passed through the House by a comfortable majority (254 to 170). But it still remains to be seen whether the Senate and a possible conference between the two chambers will send to the White House a bill which President Eisenhower will sign. Statements were made in the House by Republican members that the refusal to include some financial controls in the TVA revenue bond bill would make certain another presidential veto. If this turns out to be the case, chances seem to favor another sustaining of a presidential veto if the Democratic leadership in Congress cares to risk another test of it.

**B**UT the real pressure is building up for spending a lot more of the taxpayers' money after 1960, when Eisenhower will no longer be in the White House to ob-

## PUBLIC UTILITIES FORTNIGHTLY

struct with vetoes—and the water lobbies hope that whoever will be in the White House at that time will be more co-operative.

The Senators passed a resolution by Senator Mansfield (Democrat, Montana), the majority whip, calling for a two-year study of water resources in the United States. This study would cost \$175,000. That is mere peanuts, as federal expenditures go, in this area. But it would mean only "blueprint money"—setting up the paper work for the real expenditures in the form of actual project appropriations.

Mansfield's resolution, which has the backing of the Senate leadership presumably, would have a select group of Senators from the following committees investigate and co-ordinate water resources policy and requirements through 1960: Agriculture, Interstate and Foreign Commerce, Interior, and Public Works.

OF course, the study of water resources has been going on around Washington since George Washington, as a young surveyor, laid out the old Chesapeake and Potomac canal. Peter Edson, syndicated columnist for the Scripps-Howard newspapers, writing in *The Washington Daily News*, recently made a recap of the mountain of studies and reports on water resources and water shortages which have piled up in various agencies and libraries around the nation's capital just since the days of the New Deal. Said Mr. Edson:

In recent years—particularly in New and Fair Deal days—Bureau of Reclamation in Department of Interior, Department of Agriculture, and Army Corps of Engineers have surveyed every bay, basin, and dam site in America. They all have plans running out of their hairy ears.

To name just a few others, Presi-

dent Truman's Water Resources Policy Commission under Morris L. Cooke filed a three-volume report in 1951. First and Second Hoover commissions, ending in 1955, filed more volumes on reorganization of government agencies responsible for water resources management—and that includes nearly all.

Now the Senate Interim Select Committee on National Water Resources is to co-ordinate all this. And the politics behind this move is worthy of note.

After the 1958 election, Senate Majority Leader Lyndon Johnson made a speech deep in the heart of Deep Springs, Texas. He said the Democrats now had a mandate to do ten things. No. 5 was to develop water resources for the West.

This was taken to mean that the Democrats would try to end the "no new starts" policy on water resources projects. It had been imposed by the Eisenhower administration as an economy measure. The rule was relaxed last year to relieve the recession. The largest water appropriation on record—\$1,250,000,000—was voted to speed up projects already under way.

WHAT seems to be bothering the water lobbies—nearly fifty in number—is the Eisenhower administration's so-called policy of "no new starts." The Eisenhower administration has not exactly skimmed on water resource projects, in view of nearly a billion-dollar appropriation called for in the fiscal 1960 budget. But the water lobbies feel that they are stymied by the fact that the "no new starts" reclamation policy would result in a partial holiday on various proposals which will have to lie on the shelf until a more sympathetic administration agrees to put them in the works once more.



### *Large Midwest Pipeline Approved*

ON May 14th the Federal Power Commission approved \$112.3 million of proposed construction to bring 360 million cubic feet of natural gas daily to the Chicago-Gary metropolitan area. Key feature of the project is a \$50.8 million pipeline stretching 350 miles from Portland, Tennessee, to Joliet, Illinois, to be built by Midwestern Gas Transmission Company, a subsidiary of Tennessee Gas Transmission Company. At the same time, Tennessee Gas got permission to expand its system at a cost of \$61.5 million, including 158 miles of pipeline, so it can supply gas to Midwestern for shipment to the Chicago-Gary area.

An FPC examiner, Samuel Binder, in another action has also recommended—subject to commission review—that El Paso Natural Gas Company be authorized to build \$24 million of facilities to complete a \$55.5 million project to supply a maximum of 100 cubic feet of natural gas daily to Los Angeles. The commission last year authorized the company to build \$31.5 million of field facilities. The new recommendation covers \$24 million of main-line facilities for the same project. If approved by the full commission, the gas would be delivered to Southern California Edison Company, Southern California Gas Company, and Southern Counties Gas Company, all of Los Angeles.

The Midwestern-Tennessee project is the American part of an original proposal to build more than 2,000 miles of pipeline from Portland to a point near Emerson, Manitoba, on the U. S.-Canadian border to bring both U. S. and Canadian gas into the upper Midwest. After the FPC rejected this plan last fall, along with the

competing proposals of other companies, Midwestern submitted its American and Canadian expansion programs as separate plans. The Canadian proposal is now being reviewed by the FPC staff.

### *Other Regulatory Proposals*

SENATOR McClellan (Democrat, Arkansas) has urged Congress to make all transportation unions subject to anti-trust regulation. His recommendations are to be sent to the Senate Judiciary Committee for action. Should it be put into a bill, however, there is scant likelihood of its being passed by the present Congress. Although the proposed legislation is aimed at the teamsters and two dock unions, the railroad brotherhoods would have to be included. Their influence on Capitol Hill is such that this measure could not pass the Senate. The Teamsters Union, the International Longshoremen's Association, and the International Longshoremen's and Warehousemen's Union are the three primary targets of Senator McClellan's proposal. His basic idea is to prevent further abuse of power by a coalition of these three unions which could prove detrimental to the national interest.

An interesting new bill has been introduced (HR 5193) by Representatives Forand (Democrat, Rhode Island) and King (Democrat, California) that would make advertising expenditures to influence legislation tax deductible. However, the advertising money would have to be used on legislation, the nature of which would tend to destroy the business of the taxpayer if enacted. It would bring no relief to taxpayers for advertising expenditures designed to oppose an established or contemplated policy, if no specific legislation were pending.



### *House Subcommittee Approves Critical Report on Justice Department*

THE House Subcommittee on Anti-trust Legislation has approved a critical report of the government's handling of an antitrust case against the American Telephone and Telegraph Company.

The Justice Department had attempted to split AT&T and its manufacturing affiliate, the Western Electric Company. The suit, however, was concluded when the government accepted a consent decree of 1956 which compelled Western Electric to rid itself of two subsidiaries and stop the manufacture of various commercial communications systems.

The subcommittee report, filed by Chairman Emanuel Celler (Democrat, New York), will be kept under wraps until the Republican members of the panel have had a chance to file their objections. Chairman Celler termed the document "very critical" of the government's consent decree. Republican members refused to sign the report. It gained subcommittee approval, however, due to the Democratic majority.

In addition to the chairmanship of the subcommittee, Mr. Celler is also chairman of the full Committee on the Judici-

## Telephone and Telegraph

ary. When the minority views have been received the report will be released to the public.

### *Repeal of Telephone Excise Tax?*

SENATOR Olin D. Johnston (Democrat, South Carolina) has introduced an amendment to a House estates tax bill which would repeal the 10 per cent excise tax on telephone and telegraph service. The amendment to the House-approved bill is an attempt to get around the constitutional provision which demands that tax legislation arise in the House. This does not apply, however, to Senate amendments to House proposals. The House Committee on Ways and Means now has over 100 bills designed to eliminate the telephone excise tax. Congressmen's offices have been flooded with a steady stream of letters protesting the continued 10 per cent tax. The telephone companies have been including in their monthly bills a flyer urging their customers to take this action. In spite of this pressure the committee has taken the position that no such bills should be reported until general hearings on the subject of excise tax revision have been held. No such hearings have been scheduled.

## TELEPHONE AND TELEGRAPH

Should Senator Johnston's amendment be passed by the Senate and added to the House bill, it would almost surely face a tough fight when it would be returned to the House for approval of the Senate changes. It is doubted that any "general" hearings will be held in the near future regarding the elimination of excise taxes since the dropping of these "emergency" levies, initiated during World War II, would result in a huge loss of revenue to the federal government.

### *Million Mark Reached by California General Telephone*

IN a recent ceremony, the mayor of Santa Monica, California, Ben Barnard, presented movie personality Shirley Temple with a telephone representing the addition of the one millionth telephone customer served by the General Telephone Company. Leroy E. Lattin, president of General Telephone, stated that a record of expansion had been established that has never before been attained by an independent telephone company. He estimated that his company would invest an additional \$170 million in the next three years in order to expand services and keep up with southern California's continued rapid growth.

### *Western Union to Produce Air Force Communications System*

WALTER P. MARSHALL, president of Western Union Telegraph Company, has announced that his company will produce the fastest, most advanced digital communications system in existence for the Air Force. The system will be able to transmit about seven million punched cards per day or about 90 million words. Western Union believes that this project

will be its most important system from a standpoint of revenues derived from leased wire services and the national defense.

Mr. Marshall predicted that the day would arrive when such systems would be capable of transmitting digitized voice. Persons would talk into a machine, the machine would recognize words, and these would be translated into digits which could be transmitted.

### *ABA Regulatory Bill*

THE American Bar Association's bill (HR 6774) to reform regulatory commission procedure was put into the congressional hopper on May 1st by Representative Harris (Democrat, Arkansas), chairman of the House Interstate Commerce Committee. This proposed bill would add a new section to the Federal Communications Act, reading: "In agency hearing proceedings which are subject to notice and opportunity for hearing and required by law to be based upon a hearing record, the agency's determination and decision shall be based solely . . ." on the record. The ABA bill would not apply to administrative actions and rule-making proceedings. "Ex parte" (one-sided) contacts would be forbidden to all commission members and staff. All communications would be made a part of the public record. Persons attempting to make off-the-record presentations, or commissioners failing to report same, would be subject to a \$10,000 fine or one year in jail. Harris told the House that it covers some of the same problems as HR 4800, which he also introduced. Both bills will be subject to future hearings by the House Interstate Commerce Committee. HR 6774 also has sections dealing with five other independent agencies, as well as the FCC, as does HR 4800.



## Financial News and Comment

By OWEN ELY

### *Reducing the Cost of Peaking Power*

At the end of World War II the electric utilities had a considerable amount of old and obsolete steam-generating equipment, since it had been difficult to install new facilities during the war, and during the 1930's expansion was at a low rate. While some of this equipment has been retired, there are still probably a fair-sized number of obsolete units of about 10-20,000-kilowatt capacity (a few perhaps as old as fifty years) which are being used for peaking purposes once or twice a year. After these are written out of the rate base by being fully depreciated, there is considerable question whether it is good economy to preserve them for use once or twice a year, considering the cost of maintenance and the very high operating cost.

This raises the question as to how peaking or stand-by requirements can be taken care of most efficiently and cheaply. Makers of generating equipment have been working in recent years to develop small units which could be used conveniently on a part-time basis, with low construction cost. Advantageous factors would be: remote control for automatic starting and stopping, without personnel; small maintenance cost; use of oil as fuel; convenient location near peak demand area; low noise

level if possible; low installation cost and reasonable generating cost.

In the FORTNIGHTLY for December 18, 1958, pages 1033-1036, the peaking economies claimed for General Motors' new diesel MU-60 were described. These units have about 2,000-kilowatt capacity and three of them can be combined into a "package plant" to be operated in unison. However, in some cases larger units are required and General Electric in March announced its new gas turbine specially designed for utility peaking purposes. This has a capacity of about 20,500 kilowatts for summer peaking, but capacity may run as high as 27,000 kilowatts in winter peak periods with adequate cooling water. At least seven large utility companies are said to be studying these units, with the possi-

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## FINANCIAL NEWS AND COMMENT

bility of installing them and postponing construction of large steam units. Two peak load units already have been purchased.

General Electric has investigated various methods of obtaining peaking power, such as pumped storage hydro, small diesels, and gas turbines. (Other solutions such as storage of chemical energy may be developed in the long-range future). With steam plants, investment and labor costs are frequently too high for short-term peaking economies, and no savings in transmission are available. Storage hydro is practical for some peaking purposes, but is applicable only at favorable sites. GE does not think the diesel plants have "promise of sufficient future growth to keep pace with utility system expansion." Advantages claimed for its new gas turbine for peaking purposes are: (1) low cost per kilowatt; (2) unattended operation; (3) high reliability; (4) low maintenance cost; (5) flexibility—may be located without regard to cooling water supply—can burn nonpremium distillate oil or natural gas; (6) quick starting, and ability to handle fluctuating loads. On the other hand, fuel costs run higher.

TEN years ago GE delivered the first combustion gas turbine for commer-

cial use and to date is one of the world's leading suppliers. Of over 170 turbines being used for a variety of commercial chores, 35 have each had over 30,000 hours of use; one turbine in a chemical plant has operated continuously for over 13,000 hours in a period of about a year and a half.

The largest gas turbine in the western hemisphere, with a rating of 21,500 kilowatts, is now in service in Venezuela for automatic use for daily peak load operation.

Two turbines have also been recently installed in Florida with combined capacity of 33,000 kilowatts at Orlando, Florida, for peaking services. These have not been given a separate structure, but were located between large steam turbine generators in the main station.

GE's new gas turbine designed for utility peaking is described in an 11-page press release, "Outline of Peak Load Economics." It is obvious that the turbine would yield greater savings in northern latitudes than in the South, since it has greater capacity in cold weather and the peak period in the North is in winter; in the South the machine would be used during the summer air-conditioning peak. Moreover, competing steam plants (gas-



	<i>Minimum Installed Cost Per Kw.</i>	<i>Deduct Est. Oper. Earnings</i>	<i>Add Extra Fuel Cost</i>	<i>Approx. Net Kw. Cost</i>
Approximate Cost of Gas Turbine ..	\$109*			
Savings from Deferral of Investment in Large Steam Unit .....		\$14		
Savings in Interest during Construction		2		
Operating Labor Savings .....		11		
Start-up and Spinning Reserve Savings		1		
Power Transmission Savings** .....		40		
Higher Fuel Cost .....			\$42	
Totals .....	\$109	\$68	\$42	\$83

\*Based on seasonal rating at 40° Fahrenheit and ambient temperature.

\*\*Due to location nearer load center. (Steam plants must be near water supply.)



# PUBLIC UTILITIES FORTNIGHTLY

fired and with "outdoor" construction) are less expensive in the South.

The important factor of transmission savings (due to location near the load center) is considered adequate to offset fuel penalties. Based on favorable operating conditions GE has made estimates of net cost per kilowatt, as shown in table on page 855 (there is not space here for the arithmetic), to indicate by this method how the gas turbine compares with a new steam unit costing perhaps \$150 per kilowatt.

In trying to summarize briefly this highly technical development we may have omitted important points or misrepresented others. However, the possibility of effecting important savings is always of interest, and the gas turbine seems to deserve careful consideration by utility executives in the light of their local operating conditions and costs.

## Michigan Commission Rejects "Flow-through" Policy

IN February, 1957, Michigan Consolidated Gas Company sought a rate increase and about a year later the Michigan commission granted an increase of nearly \$6 million. In March, 1958, the city of Detroit filed a petition for rehearing on a single issue, the treatment of accelerated depreciation for federal income tax purposes. The city claimed that the use of accelerated depreciation resulted in a tax saving instead of a tax deferral, contrary to the finding in the commission's order.

After hearing oral argument, the commission denied a rehearing and in a six-page document (D-3430-59.2) gave an interesting review of the issue as to whether real "savings" are obtained by using accelerated depreciation. It quoted from the original order as follows:



## CALENDAR OF PROPOSED UTILITY OFFERINGS

June-September

Date of Bidding Or Sale	Approx. Amount (Millions)		Method Of Offering	Moody Rating*
		<b>Bonds</b>		
6/2/59	\$59	Public Service Electric & Gas Bonds .....	C	Aa
6/3	25	Florida Power & Light Bonds .....	C	Aa
6/—	8	Public Service of New Hampshire Bonds .....	C	A
6/16	10	United Gas Improvement Bonds .....	C	A
6/18	5	Worcester Gas Light Bonds .....	C	A
6/23	20	Northern Illinois Gas Bonds .....	C	A
6/23	5	Brockton Edison Bonds .....	C	A
6/25	5	Mississippi Power Bonds .....	C	A
7/14	8	Jersey Central Power & Light Bonds .....	C	A
8/4	15	Pennsylvania Electric Bonds .....	C	A
9/10	18	Georgia Power Bonds .....	C	A
9/—	30	Boston Edison Bonds .....	C	Aaa
9/—	30	Long Island Lighting Bonds .....	C	A
—	20	Kansas City Power & Light Bonds .....	C	Aaa
—	5	Missouri Power & Light Bonds .....	C	A
		<b>Preferred Stocks</b>		
6/9	25	Duke Power Preferred Stock .....	C	
		<b>Common Stock Subscription Offerings</b>		
6/2	\$24	Virginia Electric & Power Common Stock .....	C	
6/3	30	Philadelphia Electric Common Stock .....	N	
6/4	18	Florida Power Corp. Common Stock .....	N	
7/22	20	Northern States Power Common Stock .....	C	
9/—	30	Union Electric Common Stock .....	C	

\*Preliminary rating, or a rating of similar issue of same company. C—Competitive, N—Negotiated.

## FINANCIAL NEWS AND COMMENT

Under all methods of computing income tax, the amount of depreciation allowance for tax purposes is identical on the same property. To borrow now future tax depreciation allowances in computing current year's tax is to incur increased tax liability over the remaining life of the property. Regardless of whether the tax remains the same, is reduced, or increased, the liability for increased tax payments over the normal tax is incurred if future tax credits are presently used in computing current tax. It, therefore, follows that a very definite tax liability is incurred if Consolidated elects to use either of the two additional methods of computing depreciation for tax purposes. In no way that we know of could the creation of a tax liability be construed as a saving; on the other hand, it is merely a postponement of the date when the tax is payable. [22 PUR3d 369, 377.]

**T**HE commission referred to the circumstances surrounding passage of the tax law by Congress, the House Committee on Ways and Means having stated:

The changes made by your committee's bill merely affect the timing and not the ultimate amount of depreciation deductions with respect to a property.

It also reviewed the decisions pro and con of other commissions and courts: Two cases in Maine and Pennsylvania had been cited by the city of Detroit in its argument; the commission in rebuttal referred to cases in Indiana, Kansas, Kentucky, Ohio, Oklahoma, and Wyoming. It also referred to FPC Accounting Order No. 203 as supporting its point of view.

The position of the Michigan commission appears contrary to that of the New York state commission, whose declaration of policy was summarized in the May 21st FORTNIGHTLY, pages 776, 777.

### *Will "Stockpiling" of New Equipment Produce Savings?*

**M**AKERS of heavy electric generating equipment have for years been concerned about the "feast or famine" flow of orders for new equipment from the utility companies. While the utilities are not affected as much as other industries by cyclical changes in business activity, nevertheless they tend to "bunch" their orders, which makes it difficult for manufacturers to maintain orderly production schedules and employment staffs. Hence any move which would tend to level out these irregularities would be a boon to manufacturers and might result in lower prices to utility companies.

#### CURRENT YIELD YARDSTICKS

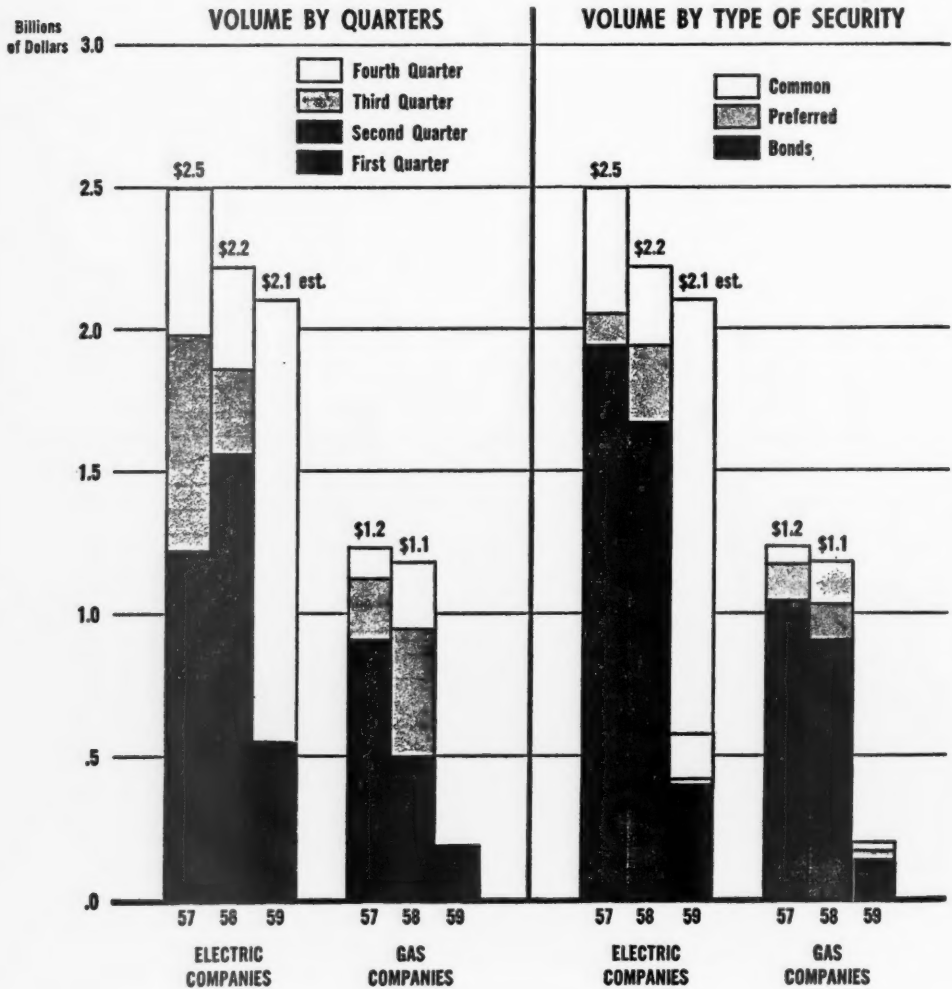
(Standard & Poor's Indexes)

	May 13, 1959	1958-59 High	Range Low	1957 High	Range Low
Utility Bonds—A1+ .....	4.48%	4.48%	—3.58%	4.38%	—3.70%
—A1 .....	4.55	4.55	—3.61	4.41	—3.73
—A .....	4.75	4.75	—3.85	4.70	—3.96
—B1+ .....	5.11	5.11	—4.20	5.21	—4.21
Preferred Stocks* .....	4.65	4.67	—4.26	4.86	—4.42
Utility Common Stocks .....	3.92	4.98	—3.71	5.44	—4.73

\*Twelve industrial and two utility issues (high-grade).

# PUBLIC UTILITIES FORTNIGHTLY

## Summary of Financing by Large Electric & Gas Companies



Source—Irving Trust Co.—Amounts include new money financings by companies with assets over \$35,000,000.

## FINANCIAL NEWS AND COMMENT

A move in this direction through "stockpiling" of boilers—ordering them a year earlier than necessary and storing them at the plant, before installation along with other generating equipment—is reported by Gene Smith in *The New York Times*.

Combustion Engineering last August asked the utilities to place orders for boilers a year ahead of their usual schedules, in order to permit better production planning. The company now reports that Consumers Power, Connecticut Light & Power, and Kansas City Power & Light have followed this plan, and two other utilities are also expected to do so.

**W**HILE storage of the boiler by the utility company involves extra expense for protection against rust, etc., there is said to be a substantial saving in price by avoiding one year's regular increase in labor costs which might average about 7 per cent. Chairman Walker of Combustion Engineering was quoted by the *Times* as follows, in reference to a \$1 million order:

A utility that orders a year ahead of time will save \$70,000 in escalation charges plus \$15,000 in erection costs, against which \$28,000 must be debited for interest and storage charges. When all factors are considered and, based on one year of storage, the net savings on the basis of the initial investment of \$1 million amount to \$57,000 or 5.2 per cent. A similar investment, assuming two years of storage, would amount to an estimated \$106,800 or 9.8 per cent.

Of course if all utilities ordered equipment a year earlier, this would not necessarily smooth the cycle, but in any event it would make for greater flexibility and permit more orderly production.

### *Five-year Nonrefunding Proviso Stretched to Seven Years*

**D**UE to increasing difficulties in the bond market, Detroit Edison arranged last month to place \$40 million bonds privately with a group of institutions. To obtain a  $4\frac{3}{4}$  per cent coupon rate for an Aa bond (the Moody rating on previous issues of general refunding bonds) the company apparently found it necessary to stretch the usual five-year period of nonrefundability to seven years.

This would seem to be a good trade in view of the bleak outlook for the bond market and the rise in the "prime" loan rate from 4 to  $4\frac{1}{2}$  per cent, announced the following day. The increase was made by the First National City Bank of New York, and other leading banks throughout the country soon followed suit. Normally the Federal Reserve might be expected to raise the discount rate first—presumably from 3 to  $3\frac{1}{2}$  per cent—but the Federal Reserve has probably refrained from doing so thus far in order not to embarrass the Treasury during its recent \$1.8 billion refunding operation. Otherwise, with unemployment shrinking rapidly, the FRB might now feel free to put further checks on the expansion of credit in order to restrain inflationary trends. A technical move was made recently to tighten some of the margin requirements in the stock market.

**A**CCORDING to *The New York Times*, an increase in the prime rate had not been expected in New York city, since loans in that city had declined seasonally and are now about \$1.3 billion below the 1957 peak—although loans outside the city are nearly \$0.5 billion above 1957. However, with government bonds yield-

## PUBLIC UTILITIES FORTNIGHTLY

ing 4 to 4½ per cent and high-grade corporates 4¾-5, the City Bank was apparently apprehensive that funds might be borrowed for use in the capital markets.

The rise in the prime rate restores the level which prevailed during August, 1957, to January, 1958. While the prime rate did not make its appearance until around 1935—it represents the rate for customers with the highest credit standing—corresponding bank rates rose as high as 6 per cent in 1919 and 1929.

The money stringency has slowed down the number of new senior offerings somewhat, although on May 14th the backlog of pending corporate bonds and preferred stock issues as compiled by the *Investment Dealers' Digest* was \$1.3 billion. The next important utility bond offering was the \$75 million Consolidated Edison issue scheduled for May 27th.

## Capitalistic Enterprises Face Dangers

**C**OMMUNISM poses an ever-present threat to undermine America's free enterprise system, 350 businessmen of the

Baltimore area were told at a recent meeting in that city of the Transportation Association of America's Central Maryland Enterprise Council. Coincidentally, they were warned that socialization of transportation is threatened if present trends are not checked.

Speakers at the luncheon meeting were Dr. George P. Baker, professor of transportation at the Harvard Graduate School of Business Administration and president of the Transportation Association of America, and Dr. Raymond W. Miller, lecturer, authority on world affairs, and president of Public Relations Research Association of Washington. Dr. Miller, who has recently published a book "*Can Capitalism Compete?*", in discussing the dangers to the capitalistic system, said:

The Red czar of the Kremlin and the emperors of Peiping are using the discoveries of the industrial age and of science to subjugate man. This is being done in the name of Karl Marx by those who claim to be his present-day disciples while we, in a democratic state, have mastered both capital and science in the interest of mankind.

## FINANCIAL DATA ON ELECTRIC UTILITY STOCKS

Annual Rev. (Mill.)			5/12/59 Price About	Divid- end Rate	Approx. Yield	Recent Share Earns.	% In- crease	Aver. In Sh. Earns. 1953-58	Price- Earn. Ratio	Div. Pay- out	Approx. Common Stock Equity
\$297	S	American Elec. Power ....	52	\$1.68	3.2%	\$2.34Ma	8%	9%	22.2	71%	33%
57	O	Arizona Pub. Serv. ....	38	1.20	3.2	*1.88De	4	11	*20.2	64	28
12	O	Arkansas Mo. Power ....	23	1.00M	4.3	1.48Ma	4	2	15.5	67	32
36	S	Atlantic City Electric ....	43	1.50	3.5	1.98Ma	8	10	21.7	76	30
153	S	Baltimore Gas & Elec. ....	47	1.80	3.8	2.61Ma	18	8	18.0	69	41
7	O	Bangor Hydro-Elec. ....	41	2.00	4.9	2.75Ma	27	5	14.9	73	33
6	O	Black Hills P. & L. ....	31	1.44	4.6	2.54Ja	20	4	12.2	57	32
109	S	Boston Edison ....	63	2.80	4.4	3.55De	14	4	17.7	79	43
27	A	Calif. Elec. Power ....	20	.80	4.0	*1.14De	24	6	*17.5	70	35
23	O	Calif. Oreg. Power ....	37	1.60	4.3	1.98De	27	3	18.7	81	37
9	O	Calif. Pac. Util. ....	36	1.60	4.4	2.38Ma**	3	20	15.1	67	31
70	S	Carolina P. & L. ....	35	1.32	3.8	2.01Ma	5	7	17.4	66	42
32	S	Cent. Hudson G. & E. ....	21	.80	3.8	*1.29Ma	2	6	*16.3	62	36
23	O	Cent. Ill. E. & G. ....	33	1.44	4.4	1.99Ma	D2	4	16.5	72	43
39	S	Cent. Ill. Light ....	35	1.40	4.0	2.16Ma	5	9	16.2	65	33
55	S	Cent. Ill. P. S. ....	46	1.76	3.8	2.59Ma	1	16	17.8	68	35
17	O	Cent. Louisiana Elec. ....	51	1.80	3.5	2.20Ma	D2	8	23.2	82	30
39	O	Cent. Maine Power ....	27	1.40	5.2	*1.59Ma	D13	3	*16.9	88	33
147	S	Cent. & South West ....	62	1.80	2.9	2.62Ma	7	10	23.7	69	38



# FINANCIAL NEWS AND COMMENT

Annual Rev. (Mill.)	(Continued)	5/12/59 Price About	Divi- dend Rate	Approx. Yield	Recent Share Earnings	% In- crease	Aver. Incr. In Sh. Earnings 1953-58	Price- Earnings Ratio	Div. Common Pay-out Stock Equity
12	O Cent. Vermont P. S. ....	23	1.00	4.3	*1.38Ma	27	11	*16.7	72 35
128	S Cincinnati G. & E. ....	34	1.50	4.4	1.85De	D8	4	18.4	81 43
8	O Citizens Util. "B" + ....	27	1.05	3.9	1.28De	6	6	21.0	82 48
119	S Cleve. Elec. Illum. ....	53	1.60	3.0	2.60De	D1	6	20.4	62 45
6	O Colo. Cent. Power ....	41	1.44	3.5	2.07Ma	15	6	19.8	70 39
46	S Columbus & S. O. E. ....	36	1.60	4.4	2.01Ma	D20	—	17.9	80 30
405	S Commonwealth Ed. ....	61	2.00h	5.3h	3.49Ma	20	8	17.5	57 43
14	A Community Pub. Ser. ....	24	1.00	4.2	1.33Ma	1	5	18.0	75 46
78	O Conn. Lt. & Pr. ....	25	1.10	4.4	*1.31Ma	3	5	*19.1	84 39
582	S Consol. Edison ....	64	2.80	4.4	*3.94Ma	8	5	*16.2	71 38
228	S Consumers Power ....	53	2.40	4.5	3.22F	D2	—	16.5	75 39
83	S Dayton P. & L. ....	52	2.40	4.6	3.21De	2	4	16.2	75 40
50	S Delaware P. & L. ....	65	2.10	3.2	3.02Ma	7	11	21.5	70 33
246	S Detroit Edison ....	44	2.00	4.5	2.21Ma	D13	3	20.0	90 50
145	A Duke Power ....	47	1.40i	3.0	2.10Ma	8	11	22.4	67 48
99	S Duquesne Light ....	25	1.10	4.4	*1.38Ma	D1	5	*18.1	80 34
33	O East. Util. Assoc. ....	43	2.20	5.1	2.76Ma	9	2	15.6	80 34
16	O El Paso Elec. ....	30	1.16	3.9	1.59Ma	11	10	18.9	73 37
12	S Empire Dist. Elec. ....	25	1.20	4.8	1.67Ma	17	3	15.0	72 33
57	S Florida Power Corp. ....	28	.72	2.6	1.16Ma	7	18	24.1	62 42
145	S Florida P. & L. ....	87	1.76	2.0	3.54Ma	12	26	24.6	50 35
4	O Florida Pub. Utilities ....	22	.72	3.3	1.17De	22	3	18.8	62 31
213	S General Pub. Util. ....	51	2.12	4.2	*3.16Ma	4	7	*16.1	67 40
7	O Green Mt. Power ....	22	1.00	4.5	1.44Ma	22	12	15.3	69 37
70	S Gulf States Util. ....	64	1.80	2.8	2.61Ma	13	7	24.5	69 33
51	A Hartford Electric ....	69	3.00	4.3	*3.61Ma	D3	5	*19.1	83 40
25	O Hawaiian Elec. ....	58	2.50	4.3	3.05De**	D3	6	19.0	82 38
94	S Houston L. & P. ....	73	1.60	2.2	2.93Ma	7	9	24.9	55 44
30	S Idaho Power ....	48	1.70	3.5	2.47Ma	2	10	19.4	68 33
92	S Illinois Power ....	40	1.50	3.8	2.26Ma	11	10	17.7	66 37
49	S Indianapolis P. & L. ....	39	1.50	3.8	2.28Ma	7	8	17.1	66 35
31	S Interstate Power ....	19	.85	4.5	1.16Ma	10	4	16.4	73 32
37	S Iowa Elec. L. & P. ....	36	1.60	4.4	2.20Ma	5	6	16.4	73 40
44	S Iowa-III. G. & E. ....	38	1.80c	4.7	2.48Ma	D6	—	15.3	73 43
41	S Iowa P. & L. ....	37	1.60	4.3	2.03De	D2	1	18.2	79 34
35	O Iowa Pub. Ser. ....	19	.80	4.2	1.23Ma	7	8	15.4	65 32
15	O Iowa Southern Util. ....	30	1.36	4.5	2.10Ma	9	4	14.3	65 40
61	S Kansas City P. & L. ....	54	2.20	4.1	3.05Ma	2	5	17.7	72 38
33	S Kansas G. & E. ....	46	1.48	3.2	2.59Ma	8	9	17.8	57 31
50	S Kansas P. & L. ....	32	1.36	4.3	2.09Ma	5	12	15.3	65 34
43	O Kentucky Util. ....	36	1.52	4.2	2.53Ma	23	8	14.2	60 40
7	O Lake Superior D. P. ....	25	1.20	4.8	1.59Ma	D3	2	15.7	75 41
122	S Long Island Ltg. ....	35	1.20	3.4	*1.99Ma	7	8	*17.6	60 36
61	S Louisville G. & E. ....	42	1.30	3.1	2.24Ma	7	7	18.8	58 42
11	O Madison G. & E. ....	49	1.80	3.7	3.71Ma	D4	2	13.2	49 45
5	A Maine Pub. Ser. ....	24	1.20	5.0	1.59Ma	13	7	15.1	75 40
7	O Michigan G. & E. ....	69	1.70j	5.5	4.53De	11	10	15.2	38 37
183	S Middle South Util. ....	48	1.90	3.9	2.63Ma	3	5	18.3	72 39
30	S Minn. P. & L. ....	37	1.60	4.3	2.26Ma	D13	3	16.4	71 33
3	O Miss. Valley P. S. ....	30	1.40	4.7	2.16De	1	5	13.9	65 33
15	S Missouri P. S. ....	18	.72f	6.0	.85Ma	D20	3	21.2	85 30
7	O Missouri Util. ....	27	1.36	5.0	1.68Ma	D3	—	16.1	82 30
44	S Montana Power ....	74	2.40	3.4	*4.15Ma	11	10	*17.8	58 39
167	S New England Elec. ....	21	1.00	4.8	1.31Ma	6	2	16.0	76 36
46	O New England G. & E. ....	23	1.10	4.8	1.66Ma	8	7	13.9	67 41
98	S N. Y. State E. & G. ....	60	2.30	3.8	*4.10Ma	28	11	*14.6	56 35
264	S Niagara Mohawk Pr. ....	39	1.80	4.6	*2.12Ma	6	—	*18.4	85 28
92	O Northern Ind. P. S. ....	51	2.00	3.9	2.88Ma	D5	3	17.7	69 36
155	S Nor. Sts. Power ....	25	1.10	4.4	1.36Ma	6	3	18.4	81 33
11	O Northwestern P. S. ....	21	1.00	4.8	1.51Ma	2	2	13.9	66 32
138	S Ohio Edison ....	65	2.64	4.1	3.68Ma	2	3	17.5	72 40
54	S Oklahoma G. & E. ....	30	1.00	3.3	1.47Ma	11	10	20.4	68 31
26	O Orange & Rockland Utils. ....	23	.90	3.9	*1.29De**	3	22	*17.8	70 27
17	O Otter Tail Power ....	33	1.60	4.8	2.27Ma	2	1	14.5	70 30
535	S Pacific G. & E. ....	65	2.60	4.0	3.74De	10	7	17.4	70 34

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Annual Rev. (Mill.)	(Continued)	5/12/59 Price About	Divi- dend Rate	Approx. Yield	Recent Share Earns.	% In- crease	Aver. Incr. In Sh. Earns. 1953-58	Price- Earn. Ratio	Div. Pay- out	Approx. Common Stock Equity
52	O Pacific P. & L. ....	41	1.60	3.9	*2.40De	17	9	*17.1	67	30
131	S Penn Power & Lt. ....	57	2.50	4.4	3.17Ma	—	2	18.0	79	34
248	S Phila. Elec. ....	52	2.24	4.3	*2.86Ma	9	4	*18.2	78	38
36	O Portland Gen. Elec. ....	29	1.20	4.1	1.80De	3	8	16.1	67	37
72	S Potomac Elec. Pr. ....	27	1.20	4.4	*1.57De	—	7	*17.2	76	37
97	S Pub. Serv. of Colo. ....	52	1.90k	3.6	2.61Ma	D3	5	20.0	73	33
344	S Pub. Serv. E. & G. ....	40	1.80	4.5	2.38Ma	6	4	16.8	76	35
81	S Pub. Serv. of Ind. ....	47	2.10	4.4	2.87Ma	5	5	16.4	73	33
32	O Pub. Serv. of N. H. ....	20	1.00	5.0	1.30Ma	1	7	15.4	77	36
15	O Pub. Serv. of N. M. ....	28	.90g	3.2	1.39De	15	11	20.1	65	34
27	S Puget Sound P. & L. ....	34	1.44	4.2	*1.97De	8	12	*17.3	73	50
65	S Rochester G. & E. ....	46	1.80	3.9	2.60Ma	18	3	17.7	70	37
9	S St. Joseph L. & P. ....	34	1.50	4.4	1.91Ma	D5	2	17.8	79	34
59	S San Diego G. & E. ....	29	1.04	3.6	1.57Ma	20	3	18.5	66	35
11	O Savannah E. & P. ....	28	1.00	3.6	1.41F	4	5	20.0	71	32
11	O Sierra Pacific Pr. ....	34	1.40	4.1	2.05Ma	5	10	16.6	68	31
256	S So. Calif. Edison ....	61	2.60	4.3	3.48Ma	9	9	17.5	75	36
50	S So. Carolina E. & G. ....	37	1.30	3.5	1.88F	11	13	19.7	69	33
7	O Southern Colo. Pr. ....	20	.90	4.5	1.53F	17	4	13.1	59	36
272	S Southern Co. ....	38	1.30	3.4	1.75Ma	3	9	21.7	74	34
20	S So. Indiana G. & E. ....	35	1.60	4.6	2.44Ma	1	3	14.3	66	35
8	O So. Nevada Power ....	29	1.00	3.4	1.61Ma	15	7	18.0	62	46
3	O Southwestern E. S. ....	17	.64	3.8	.99F	8	x6	17.2	65	27
44	S Southwestern P. S. ....	47	1.48	3.1	1.83Ma	1	4	25.1	81	36
32	A Tampa Elec. ....	51	1.20	2.4	1.75Ma	2	10	29.1	69	33
168	S Texas Utils. ....	66	1.76	2.7	2.79Ma	10	12	22.5	63	41
42	S Toledo Edison ....	17	.70	4.1	1.16Ma	14	4	14.6	60	31
17	O Tucson G. E. L. & P. ....	28	.76	2.7	1.08Ma	D8	12	25.9	70	47
132	S Union Elec. of Mo. ....	33	1.52	4.6	*1.77De	5	6	*18.6	86	32
36	O United Illum. ....	30	1.38	4.6	1.77Ma	15	3	16.9	78	50
6	O Upper Peninsula Pr. ....	32	1.60	5.0	1.69Ma	5	2	18.9	95	32
45	S Utah Power & Light ....	34	1.20	3.5	1.81Ma	1	7	18.8	66	44
140	S Virginia E. & P. ....	37	1.10	3.0	1.68Ma	NC	17	22.0	65	39
31	S Wash. Water Pr. ....	45	2.00	4.4	*2.56Ma	4	6	*17.6	78	32
142	S West Penn Elec. ....	37	1.60	4.3	2.27F	3	6	16.3	70	32
77	O West Penn Power ....	59	2.40	4.1	3.27De	D2	6	18.0	73	38
12	O Western Lt. & Tel. ....	42	2.00	4.8	2.94Ma	8	2	14.3	68	41
28	O Western Mass. Cos. ....	26	1.20	4.6	1.67De	4	13	15.6	72	50
119	S Wisc. Elec. Pr. (Cons.) ...	38	1.60	4.2	2.12De	D12	1	19.9	75	40
44	O Wisconsin P. & L. ....	32	1.36	4.3	2.15Ma	5	4	14.9	63	37
43	S Wisconsin P. S. ....	26	1.20	4.6	1.83Ma	7	3	14.8	65	37
Averages .....				4.1%		6%	7%	18.0	71%	
Foreign Companies										
215	S Amer. & Foreign Power ..	17	\$1.00	5.9%	\$1.72De	—	0	9.9	58%	44%
170	A Brazilian Traction ....	7	.25	3.6	1.52D'57	D30%	0	4.6	16	75
83	A British Col. Pr. ....	40	1.40	3.5	1.95De	D16	7%	20.5	72	28
20	O Calgary Power ....	95	2.00	2.1	4.46De	11	18	21.3	45	31
19	A Gattineau Power ....	46	1.50	3.3	2.55De	7	9	18.0	59	35
49	O Mexican L. & P. ....	15	1.00b	6.7	1.66De	D16	—	9.0	60	41
15	A Quebec Power ....	39	1.60	4.1	2.34De	8	10	16.9	68	53
71	A Shawinigan Water & Pr. ..	32	.68	2.1	1.60De	5	23	20.0	43	38

\*Deferred taxes resulting from liberalized depreciation are not normalized. If they had been normalized the price-earnings ratio would be higher. \*\*On average shares. †Stock dividends (only) are paid on the "A" shares. x—Average increase in share earnings 1952-57. D—Decrease. NC—Not comparable. A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. Ja—January; F—February; Ma—March; Ap—April; My—May; Je—June; Jy—July; Au—August; Se—September; Oc—October; N—November; De—December. b—Also 5 per cent stock dividend May 1, 1959. c—Also 5 per cent stock dividend June 10, 1959. f—Also stock dividend of one-half per cent quarterly. g—Also 5 per cent stock dividend July 1, 1958. h—Also 2 per cent stock dividend November 20, 1958, included in the yield. i—Also 15 per cent stock dividend January 29, 1959. j—Also 3 per cent stock dividend (paid each year end) included in yield. k—Also 5 per cent stock dividend payable February 20, 1959. M—Also 5 per cent stock dividend payable June 15, 1959.



## What Others Think

### Summary of the Examiner's Decision in the Phillips Gas Case

ON April 6, 1959, Federal Power Commission Examiner Joseph Zwerdling issued a 329-page initial decision, subject to commission review, in the consolidated rate proceedings of Phillips Petroleum Company. This large, independent producer was the guinea-pig company on which the original test of FPC jurisdiction over gas producers under the Natural Gas Act resulted in the celebrated 1954 ruling of the U. S. Supreme Court, generally known as the "Phillips decision." (3 PUR3d 129.) Now comes the actual proof of the jurisdictional pudding in the form of the examiner's decision in what is still looked upon as a test case for guidance in similar cases.

The examiner found that Phillips' rates should be based on average system-wide costs of 11.662 cents per Mcf, which include a 9.25 per cent rate of return and income taxes actually payable at that rate of return. The decision calls for an 11.662-cent uniform *system-wide* rate which, however, will vary for delivery and quality differentials. Similarly, Phillips' new jurisdictional contracts are to be set at the 11.662-cent price with variations for delivery and quality differentials.

The effect of the decision would be to raise Phillips' revenues by \$14 million

above test year revenues of about \$43 million. This increase is \$8,750,000 larger than the \$5,250,000 Phillips has filed for under its contract escalation clauses, but is \$35 million below the amount Phillips had asked for on the basis of its own cost-of-service study. Note that the company had taken the position that rates should be based on costs, not field prices, and that a uniform system-wide rate should be put into effect.

AT the beginning of his decision Examiner Zwerdling reviewed the "landmark" court and FPC decisions by which he considers the Phillips case is governed. He quoted paragraphs from *Interstate Nat. Gas Co. v. Federal Power Commission* (1947) 331 US 682, 69 PUR NS 1, and *Phillips Petroleum Co. v. Wisconsin* (1954) 347 US 672, 3 PUR3d 129. Then, in a section apparently written before the recent fifth circuit decision in *Forest Oil Corp. et al. v. Federal Power Commission*, he observed that "there have been two major court of appeals decisions dealing with the broad problems as to how 'just and reasonable' rates should be determined for such producer sales under the Natural Gas Act": *City of Detroit v. Federal Power Commission* (CA DC 1955) 11

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PUR3d 113, 230 F2d 810, and *Bel Oil Corp. v. Federal Power Commission* (CCA 5th 1958) 24 PUR3d 512, 255 F2d 548. He also cites the commission's Opinion No. 300 in *Union Oil Company of California et al.* 16 PUR3d 112, and a number of other cases to show that "the commission has consistently held . . . that the conventional rate base method of rate making must be used as a basis of comparison or point of departure."

Examiner Zwerdling then turned to "some of the major contentions made by those who oppose the use of the cost-of-service method for the regulation of producer rates," noting at the outset that "Phillips itself has taken the position throughout this proceeding that its 'just and reasonable' rates should be determined under the cost-of-service method, rather than under a field price method."

To the contention that the four-year delay in implementing the Supreme Court's Phillips decision is evidence that the cost-of-service method is unworkable, he replied that it was not until June, 1956, in the present proceeding, that any producer attempted to make "a comprehensive cost-of-service presentation." To the contention that the length of the Phillips case hearing and record demonstrates unworkability, he replied that "once the commission has firmly established the applicable standards and methods to be used in determining producer rates," it will not be necessary to explore alternative proposals on such issues as allocation methods and the treatment of taxes or to present "voluminous general, industry-wide data and material. . . ."

To the contention that producers' records do not contain "the type of data required to develop a true cost of service and to make the necessary allocations," he replied that Phillips was able to produce

the necessary data and that similar difficulties in regulating pipelines had been solved "by the adoption of such techniques as a Uniform System of Accounts . . ." To the contention that allocation problems in connection with joint product wells are "complex," he replied that "complex" allocation problems have been solved in regulating pipelines (citing examples). He observed further that "The courts have never regarded the cost-of-service method for regulation of pipeline rates as being unworkable or unsatisfactory because complex allocations were required, or because such allocations were not susceptible to mathematical exactness."

### The Cost of Service

THE examiner discussed various cost-of-service studies. Phillips had shown its average company-wide cost at 18.79 cents, the FPC staff at 8.55, the Eastern Seaboard interveners at 11.21, and the Wisconsin interveners at 9.90 cents. The examiner, relying for the most part on the Eastern study, found a cost of 11.662 cents, which included a 9 per cent return plus taxes actually payable at that return. The 11.662 cents per Mcf corresponds to a total cost of service of \$57.3 million, which would give Phillips rate increases amounting to \$14 million annually.

The FPC staff had relied on an imputed cost allocation method. It had computed the cost of Phillips' dry gas leases and then imputed these dry gas costs to the cost of casinghead and condensate leases. The examiner rejected this method, because it assumes (without using the actual joint costs incurred) that the cost of gas on joint product leases is the same as on dry leases. Moreover, the staff had not imputed the total cost of dry gas production, but only the cost of dry gas production in the shallow Panhandle and

## WHAT OTHERS THINK

Hugoton fields. If the total dry gas cost had been used, the examiner noted, the imputed cost would have increased from 8.77 cents to 11.81 cents per Mcf. The examiner then related how, under cross-examination, the staff said use of the imputed cost was a matter of expediency, and if sufficient time had been available, the sales realization method would have been applied.

**T**HE examiner discussed the operating revenue deductions under two headings: (A) production costs, (B) exploration costs. Having disposed of the staff's allocation methods, he noted there was agreement among Phillips and the interveners that production costs should be allocated by the relative cost method. The method consists of finding unit costs for dry gas leases and for 100 per cent oil leases. These unit costs of the separate product leases are then multiplied by the volume of liquids and gas produced from the joint product leases, to arrive at a tentative total cost. The amount allocated to gas is determined by multiplying the actual cost incurred by the joint product leases by the ratio of tentative gas cost to tentative total cost.

The examiner commented that the relative cost method "would appear to be particularly suitable for a company such as Phillips, where the number of leases and the geographical spread of operations provide a broad base for determining the unit costs of the separate products."

In the application of the relative cost method, two issues arose: The first arose in connection with the allocation of indirect expenses. The second issue in the application of relative cost method concerned the question of whether the relative cost calculations should be made in one step, or whether separate calculations should be made for direct expenses, indi-

rect expenses, and return and taxes, as proposed by Phillips' Witness Cramer. The examiner accepted Phillips' method.

**A**s a measure of the importance of the allocation problem in exploration expenses, the examiner noted that these accounted for 28 per cent of Phillips' claimed cost of service. Before going into a discussion of the different allocation methods, he rejected the argument made by the Southern California interveners that exploration costs should not be distributed on a pro rata basis to all jurisdictional customers. Such a position is without merit, partly because the net result would require "multiple, separate cost-of-service studies, on a contract-by-contract basis" which would be "highly impracticable and undesirable."

Phillips had allocated exploration costs between its natural gas department (dry gas) and its oil and gas department (100 per cent oil and joint product leases) on the basis of net investment in producing leases. Within the oil and gas department, costs were further allocated between gas (from casinghead and condensate wells) and liquids on the basis of Btu's produced during the test year. By these methods 61.88 per cent of all exploration costs were allocated to gas.

The examiner held the net investment method to be invalid because "instead of distributing exploration costs between the two departments in the proportion that the production from each contributes to the need for exploration [it] accomplishes just the opposite—since it reflects not what has been used up and needs to be replaced, but only what is left over." Phillips had argued that the net investment method is a cost method and therefore preferable over a value method. The examiner commented that, merely because rates are made on a cost basis, it does



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not follow that all allocation problems should be solved on a "cost" basis. The net investment basis, he concluded, is neither related to the incurrence of exploration costs, nor does it reflect the real purpose of exploration operations.

**T**URNING to the Btu allocation method, the examiner said "exploration costs are not in any conceivable way affected or measured by Btu content." With respect to the dry hole component of exploration costs, the decision held it "is obviously impossible" to allocate them on the basis of hydrocarbon production, "since the activity in fact produces nothing." Turning to the undeveloped lease rental component of exploration costs, the examiner noted that lease forms call for royalty payments to be made on the basis of dollar value, so that relative heating value again does not fairly measure those costs.

The examiner concluded that there "does not appear to be any physical characteristics which could be devised to appropriately reflect the relative rôles of oil and gas in the incurrence of such costs."

### Others Methods of Allocating Exploration Costs Rejected

**T**HE examiner then addressed himself to a discussion of various proposed allocation methods relying on test year sales realization. One of these was prepared by the Southern California interveners (Chapin). It started by distributing dry holes among oil, distillate, and gas wells on the basis of successful completions of these three categories of wells. Using the ratio of successful gas to total successful wells completed, a first allocation of 17.6 per cent of exploration costs to gas was made. Since gas was also produced from the oil and gas distillate groups, a further allocation to gas was called for. This was made on a test year

sales realization basis, thereby charging a further 8.2 per cent to gas, so that 25.8 per cent of total exploration costs were charged to gas. The examiner dismissed this method as resting "on the basis of a mythical ratio" which reflects merely the relative number of dry holes placed in certain categories.

The second proposal involving the sales realization method was made (in its brief) by Consolidated Edison. It proposed to split exploration costs between the natural gas department (dry gas) and the oil and gas department (oil and joint products) on the basis of depletion expense, and then use sales realization to allocate costs between gas and liquids within the oil and gas department. The examiner discarded this approach largely for failure to adequately support it in the record.

**A** THIRD proposal, advanced by Pacific Gas and Electric, involved an allocation based on *net revenues* ("net contribution to earnings" method). Net revenues were calculated by deducting direct and indirect expenses from gross revenues. The examiner noted that this method would have charged 23.9 per cent of exploration costs to gas in 1954, but in 1956 the percentage would have been 28.9 per cent. It also raises the problem of whether test year sales, reflecting gas sales made at lower prices in past years, provides "a realistic and fair valuation of gas" in the light of the fact that exploration costs reflect a current activity related to a future supply.

A fourth variation of the sales realization method was advocated by the Wisconsin interveners (Van Scoyoc). Instead of using the revenues from gas in determining the allocation ratio, their proposal was to substitute the calculated cost of gas, so as to avoid the inherent circularity of reasoning. The employment of

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this technique makes it necessary that the calculation "reflect the very gas exploration figure which was itself the end objective of the entire allocation process." The problem was solved by means of multiple trial-and-error calculations. Since these were not spread on the record, the examiner concluded there is no basis for determining whether the method is "administratively feasible."

### Acceptance of the Reserve Added Realization Method

THE examiner then turned to a detailed discussion and endorsement of the reserve added realization method of allocating exploration costs, proposed by the Eastern Seaboard interveners (Caplan). Under this method *additions* to oil and gas reserves over a recent period are valued at current market prices, and the allocation is made on the basis of relative values so determined. The justification of the method lies in the assumption that expected findings are fairly measured by the results actually achieved in recent period. The period over which additions to oil and gas reserves were valued was 1951-55. The following prices were used to value these additions to reserves: The average Mid-Continent price for crude oil for first half of 1957 (\$3.07); the 1956 Phillips realization for natural gas liquids (\$1.587); and the weighted average prices paid by interstate pipelines for gas delivered in 1956 under new contracts executed in that year in the Panhandle-Hugoton, west Texas, Permian basin, and Gulf coast areas. This price was 13.47 cents per Mcf. The 1956 new contract price was used (rather than a 1954 price) to give weight to the growing importance of gas in relation to oil. Since recent additions to reserves result in a flow of revenues in future years, and future revenue is less valuable than present revenue, the prices

were discounted. A discount period of twenty years was used for gas and gas liquids, and ten years for oil.

Before discounting the 13.47-cent price for gas, a 2-cent escalation factor was applied for every five years of the 20-year period. The discounted prices (at a uniform 6 per cent), which were used for the valuation of reserves, were calculated at 9.04 cents per Mcf for gas, 91.01 cents a barrel for gas liquids, and \$2.26 a barrel for crude and condensate. Under this method, 30.46 per cent of exploration costs are charged to gas, equivalent to 3.12 cents per Mcf.

THE examiner then addressed himself to contentions that the RAR method is too complicated and not administratively feasible, that only meager and incomplete information is available at the time the reserves are discovered, and that the results of any one year might not be truly representative. He said the selection of a five-year period smooths out the erratic annual fluctuations in discoveries. Commenting on the charge that every rate case will become a battleground for geological experts, the examiner said the situation is not comparable to the problem of conflicting estimates made by experts in pipeline cases, where they are estimating gas reserves alone. "Our objective is not necessarily to arrive at precise, absolute figures for the volumes of gas and oil reserves added, but rather to obtain a meaningful and fair *ratio* of gas reserves added to oil reserves added on a given period." There is no reason to expect that the relationship between gas and oil reserves found by one expert would be significantly different from that found by another expert.

Finally, the examiner pointed to the fact that nation-wide data indicate that the RAR method produces significantly

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higher costs for gas than the sales realization method, because the value of gas sales in 1955 was 10 per cent of gas and oil sales, whereas the increments in reserves added amounted to 23.5 per cent of the combined value of gas and oil reserves.

### Defects of Allocation Methods Based on Current Value

**T**WICE in his decision, the examiner discussed some of the attacks made on the sales realization or other value methods of allocation. The argument that sales realization method has only been used for inventory valuations is described as being "of no relevance here," because we are confronted with a situation in which it is "not reasonably possible to allocate . . . on the basis of cost . . . or any meaningful and satisfactory physical unit of measurement." For the same reason, the contention that sales realization involves an arbitrary shifting of costs is labeled as "equally meaningless."

Turning to the problem of circularity inherent in the use of value allocation methods, the examiner took issue with the contention that if a first cost determination finds a cost above the present existing price, this would justify the immediate filing of a second rate proceeding in which the previously determined price becomes the basis for a new cost allocation which would again result in a higher cost price. He held that if "the sole basis presented for a new and second rate proceeding was the contention" that it had become necessary because of a price determination of a just and reasonable rate, "that contention would have to be rejected on the ground that it was not based upon any serious rate-making or cost principles."

**H**OWEVER, a more difficult problem may arise if Phillips were to file a second

rate proceeding two years from now, demonstrating that its overall costs, including exploration costs, had increased significantly. The examiner recognizes an "imbalance if in constructing a new RAR ratio . . . gas were to be valued at the same 11.662-cent price fixed" in the instant proceeding.

"This type of problem," the examiner continued, "will require serious consideration at the appropriate time," but its solution is not required in order to determine Phillips' present rates. He then suggested a new approach, under which the *gas value* to be used in constructing an RAR allocation ratio would be arrived at as follows:

- (1) The 11.662-cent "just and reasonable" rate determined for gas in the first rate proceeding would be used as a point of departure.

- (2) A determination would then be made of the incremental change which had occurred in the cost of gas, over and above the gas costs computed in the first rate proceeding, and the 11.662-cent gas figure would be adjusted upward by a percentage reflecting this incremental change.

### Allocation of Joint Costs between Gas and Gas Liquids

**A**FTER rejecting alternative proposals, Examiner Zwerdling adopted a modified sales realization method proposed by the Eastern Seaboard witness, Caplan. Under this method costs are charged to gas on the ratio of the value of residue gas sold to the combined value of residue gas sales plus the "net realization" from gas liquids. As value of residue gas sold, Caplan used the same 13.47-cent 1956 new contract price he employed in the RAR method. The "net realization" of gas liquids was determined by deducting

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processing costs from the 1954 book revenues of natural gas liquids. Phillips agreed that in order to arrive at the true value of liquids in the gas stream it was appropriate to deduct processing costs; however, such deduction should not be limited to operating processing costs but should also include a deduction for return and taxes on the plant facilities. The examiner agreed with this modification of the Caplan method. The results of the modified sales realization method, as computed by the examiner, charged 16.7881 per cent to liquids, which is only slightly higher than the 16.7202 per cent proposed by Phillips.

### The Rate Base

**I**N the allocation of rate base investments the examiner adopted the same methods used in the allocation of operating revenue deductions. Thus, direct lease investments were allocated on the relative cost basis and exploration investments on the RAR method. No issue was raised with regard to working capital, where the traditional pipeline formula was used. The working capital allowance was credited with 33½ per cent of income taxes payable.

The principal issue with respect to the rate base arose over whether an *average* or a *year-end* basis should be used. The staff and all interveners argued for an average rate base as consistent with prior commission practice.

In another matter relating to rate base, the examiner also upheld the company's position in ruling that Phillips' wholly owned subsidiaries should be included in the cost of service. The staff had recommended exclusion of the wholly owned subsidiaries. The principal item involved was \$17.8 million rate base investment in offshore leases held by Phillips Oil Company.

The staff urged the exclusion on the

ground that the subsidiary did not make any jurisdictional sales in the test year. The examiner rejected this argument and noted that the staff's rate of return presentation was made on the basis of a capitalization which included the wholly owned subsidiaries.

### Rejection of "Phantom" Tax Allowance

**P**HILLIPS had claimed that the computation of the income tax component in the cost of service should be made without taking into account the statutory depletion allowance and the right to charge intangible drilling costs. Phillips' claimed provision for what the interveners labeled "phantom taxes" amounted to \$15.2 million. By contrast, Phillips' actual tax liability at the 12 per cent rate of return would be \$3.4 million. The examiner rejected any allowance above the actual taxes, and computed actual tax liability, for the 9.25 per cent return approved by him, at \$615,159. He regarded any allowance above actual taxes as additional return which should be dealt with as return.

At the outset of his discussion, the examiner noted that historically, under conventional rate-making standards, utilities have been allowed to recoup only *actual* taxes. He said Phillips' contention for departing from this principle is founded upon an alleged congressional intent derived from an amendment to the Internal Revenue Code in 1918 (depletion) and a Treasury regulation issued in 1916 (intangible drilling expenses). The examiner said it "could not seriously be suggested that Congress in those early years had in mind or purported to express any intent with methods ultimately to be adopted for the determination of 'just and reasonable' rates for natural gas companies under a Natural Gas Act enacted twenty years or later, in 1938..."

## PUBLIC UTILITIES FORTNIGHTLY

### Rate of Return

PHILLIPS' witness, Dr. A. A. Smith, recommended a 12 per cent rate of return plus an allowance for phantom taxes, or, in the alternative, 17-18 per cent plus actual taxes. Wisconsin Witness Asel Colbert recommended a 7.75 per cent rate of return and FPC Staff Witness Dale Goubleman a 9 per cent rate of return. In conclusion the examiner said, "on the basis of all the considerations . . . a 9.25 per cent rate of return is a fair and reasonable rate of return to be applied to Phillips' jurisdictional rate base in the instant proceeding," as follows:

	<i>Per Cent of Capital Structure</i>	<i>Allowance</i>
Debt	11.6%	3.20%
Common Equity	88.4	10.00
Total	100.0%	9.21% rounded to 9.25%

The allowances for debt and equity were the same as recommended by the staff but the book capital structure as of December 31, 1955, excluded deferred income taxes which the staff had recommended be included at zero interest.

THE examiner noted that Phillips' Witness Smith had characterized Phillips as "a prime credit risk," which was charged the same interest rates as public utilities. Further, Phillips, like other integrated companies, is like an insurance company being more stable and able to average out some of the risks. Phillips' Witness Allen was quoted as saying that wildcat drilling has been 19.28 per cent successful for Phillips compared to an industry figure of 11.21 per cent, and Phillips, like other major producers, typically has a higher success ratio since it attempts "to farm out our poorer prospects to other operators and drill our best ones ourselves."

Mr. Zwerdling concluded that producers face "greater *physical* risk" than pipelines, but the "*financial* risk is largely removed" because the exploration costs are fully recovered in the cost of service and therefore the consumers "bear the risks attributable to the gas exploration process."

### Acceptance of FPC Staff Evidence

EXAMINER Zwerdling said the presentation by FPC Staff Witness Goubleman relied "on the theory that earnings-price ratios measured the producers' risk as appraised by investors" and that earnings-price ratios show "what investors are requiring."

Mr. Goubleman derived an average earnings-price ratio of 8.5 per cent from his study of Phillips and a 41-company test group. To this he added 0.75 per cent for cost of financing and then added another 0.75 per cent "in order to enable the company to attract capital at reasonable costs and to maintain its financial integrity," thus producing an allowance of 10 per cent on equity which, when weighted by cost of debt capital, produced a 9 per cent overall rate of return.

The examiner discussed two problems which arose in the use of earnings-price ratios, the selection of producers and the time period used.

As to the selection of companies, Mr. Goubleman had used a 41-company group, including straight producers, partially integrated and fully integrated companies, in addition to the Phillips Petroleum Company. The examiner said that earnings-price ratios should not be restricted to the straight producers since they are not representative of the integrated operations of Phillips.

As to the time period, the examiner pointed out, Mr. Goubleman, in his evidence, had used a period 1951-55, wherea-



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Dr. Smith had used the 1947-55 period. The examiner said that earnings-price ratios have obviously been declining since 1949 and that "the downward trend is continuing." This "demonstrated that the cost of equity capital to producers had declined substantially," and the 1951-55 period used by Mr. Goubleman was proper since it reflected "recent trends."

### The Increased Cost of Dry Gas Purchased under "Spiral Escalation" Contracts

THE examiner rejected as premature Phillips' claimed increased cost of dry purchased gas from producer-suppliers under contracts containing "spiral escalation" clauses which may be activated by the operation of a similar clause in Phillips' resale contract with a pipeline.

Phillips took the position that its jurisdictional rates should be determined on the basis of its overall cost of service; however, Phillips presented evidence as to "going market price" through Witness Mayer in order to meet the eventuality that the commission might determine market price to be a proper criterion for the establishment of producer rates.

### System-wide Rates *versus* Area Rates

THE examiner adopted the system-wide rate approach which had been proposed by Phillips and opposed by the FPC staff and interveners. Under this approach uniform rates were proposed for all customers, based upon Phillips' system-wide cost of service with rate differentials provided to reflect four different delivery condition factors. These four differential factors were: (1) point of delivery; (2) pressure; (3) whether dehydrated or undehydrated; and (4) whether sweet or sour.

The examiner rejected as "unaccept-

able" the area-pricing proposals advanced by the FPC staff and the Eastern Seaboard interveners. The examiner also rejected the contention of the intervening pipelines and distribution companies which derive a major portion of their gas supply from Phillips' production in the Panhandle-Hugoton field, to the effect that since they do not expect to benefit from Phillips' high-cost exploration and production in other areas, they should not be required to incur "other area costs."

IN adopting the system-wide rate approach, the examiner concluded that it represents "a satisfactory and appropriate method" for the determination of just and reasonable producer rates for the following reasons:

(1) It is inherently simple to administer.

(2) It would be fair to the producer, in the sense that it permits him to recover his total cost of service "in one way or another."

(3) "It would eliminate unreasonable preferences currently enjoyed by pipelines which are still purchasing gas under old, abnormally low-priced contracts—preferences which are based not merely upon differences in cost levels, but which reflect other historic reasons."

(4) The examiner said that although a system-wide rate would require pipelines such as Panhandle and El Paso, which are presently paying "abnormally low prices," to pay a higher price, this would be only a temporary disadvantage. The examiner stated that such would be "counterbalanced" by the fact that their necessary purchases of additional gas reserves from more recently developed and higher-cost areas would be made at lower rates than would have resulted under an area-pricing method.



## The March of Events

### Atomic Energy in Canada

**A**TOMIC ENERGY OF CANADA, LTD., has granted two contracts — one for \$200,000 to Canadian Westinghouse and the other for \$600,000 to Canadian General Electric — to design mobile, packaged nuclear power plants for use in the North right up into the Arctic.

Two types of fuel will be studied—enriched uranium and natural uranium. The study will be conducted in co-operation with the United States Atomic Energy Commission, which has had wide experience in the use of enriched uranium as a fuel. It is the source of power, for example, in the renowned U. S. atomic submarines.

Canada's problem in the development of her rugged, bitter cold northern regions, is the dependence on fuel which now must be transported long distances at tremendous cost. Atomic power stations may prove to be the answer in supplying power for northern development. Any enriched uranium used in Canada would have to be

bought in the United States where it is produced in plants costing up to \$1 billion.

### Gas Rates Go Up

**N**ATURAL gas rate increases totaling \$7,840,000, which the Federal Power Commission may allow, subject to refund, will affect about 90 wholesale customers in Kentucky, Maryland, New York, Ohio, Pennsylvania, Virginia, West Virginia, and the District of Columbia.

Six subsidiaries of the Columbia Gas System applied for the rate boost to recover increased cost of gas bought from Tennessee Gas Transmission and Hope Natural Gas Company because of proposed increases which have been filed by both companies.

The six Columbia subsidiaries also have prior rate proposals, aggregating \$15,585,000 annually, pending before the commission in earlier suspension proceedings.

The FPC said hearings on the new suspension proceedings would be ordered later.

### Alaska

#### Oil and Gas Tracts Up for Bid

**T**HE Commissioner of the Natural Resources Department of Alaska has announced the state will advertise for bids on offshore tracts of land for the purpose

of oil and gas drilling. Successful bidders are expected to commence preliminary exploration by September. These offshore leases, the first to be granted by Alaska, will be located in the Cook Inlet, south-

## THE MARCH OF EVENTS

west of Anchorage, and on Wide Bay, west of Kodiak on the Alaska peninsula.

Under the terms of the new state land

act signed by Governor William A. Egan, an individual or company may lease a maximum of 500,000 acres of offshore land.

## California

### Rapid Transit for L.A.

**P**LANs for a rapid transit system for Los Angeles may be ready in about a year, the Metropolitan Transit Authority has announced. An elevated or monorail system is envisioned. MTA Chairman Miller suggested that possibly bond buyers —

which will have to be found to finance the system—might then be interested in financing a test line of the monorail type between the downtown area and Los Angeles International Airport.

Extensive studies, he said, would be involved to determine whether such a system would be profitable.

## Illinois

### More Gas for Chicago Area

**N**ORTHERN ILLINOIS GAS COMPANY and Peoples Gas Light & Coke Company will receive substantial amounts of gas upon completion of a new pipeline by the Midwestern Gas Transmission Company. A \$112 million pipeline and expansion program has been authorized by the FPC for the Tennessee Gas Transmission Company and its subsidiary, Midwestern, which will bring about 360 million cubic feet of additional gas daily into the Chicago-Gary area.

Of this amount Northern Illinois will receive 60 million cubic feet a day additional, according to Marvin Chandler, company president.

Peoples Gas will receive 70 million cubic feet of gas daily with the amount increasing to 100 million cubic feet a day over the next three years.

### Changes in Gas Rates

**T**HE Illinois Commerce Commission has been asked by Northern Illinois Gas Company for permission to increase residential and small commercial minimum bills from 70 cents to \$1 monthly. Less than 50,000 of the utility's 640,000 customers will be affected by the change.

At the same time the company proposed a 10 per cent reduction in gas rates for its Bloomington district, which would affect about 14,000 customers.

## Louisiana

### Group Asks Gas Tax Hike

**A**NONPARTISAN citizens' committee, which was appointed to study educational problems and finances, will ask another one-cent raise in natural gas taxes for education, according to Governor Earl Long.

The recommendations of the committee are designed for long-range use, the gov-

ernor explained, more for the next administration than the present one. He said he believed the group will ask for a gas-gathering tax—like one held in abeyance pending outcome of court suits—rather than a gas severance tax.

These recommendations, Governor Long said, will not be considered in the 30-day fiscal legislature now in session.

## New Jersey

### Utilities Form Reactor Corporation

**N**EW JERSEY POWER & LIGHT COMPANY and Jersey Central Power & Light Company have announced formation of a corporation which will spearhead development of a small nuclear power reactor for a Pennsylvania generating plant. It is a nonprofit organization.

A water-type reactor will be used in the project, which will be constructed by Westinghouse Electric Corporation. It is hoped that methods to increase the operating life

and heat capacities of various types of nuclear fuel will be devised. A research and development program is expected to last more than seven years.

The energy created by the reactor will be used to drive existing turbine generators in the Saxton generating station of the Pennsylvania Electric Company.

The new corporation will be known as Saxton Nuclear Experimental Corporation and will consist of the two New Jersey utilities as well as two others, Metropolitan Edison Company and Pennsylvania Electric Company.

## Pennsylvania

### Rate Rise Authorized

**T**HE state public utility commission has given permission to Equitable Gas Company of Pittsburgh to raise its rates by \$578,600 annually for 237,200 customers in Allegheny and six other counties in the western part of the state.

The authorization was given to offset higher prices on gas that Equitable buys from one of its major wholesale gas suppliers. The company assured the commission that the entire amount of the increase would be applied to the higher wholesale costs and would return no profit to Equitable. In the event that the final rate in-

crease allowed to Tennessee Gas Transmission Company, Equitable's wholesale gas supplier, should be scaled down by the FPC, Equitable said its rates would be adjusted accordingly.

Under the new rates, average increase per month for residential customers who heat with gas would be 13 cents, and only 4 cents more monthly for nonheating gas customers.

Formal objections were made to the rate hike by the city of Pittsburgh. Also protesting were the University of Pittsburgh, Jefferson borough, and West Mifflin school district.

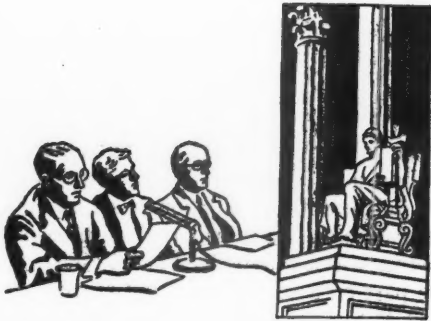
## Texas

### New Gas Tax Sought

**I**N order to raise more money for the operation of the state, the governor of Texas, Price Daniel, has asked a special session of the legislature to enact a 5 per cent "severance beneficiary" natural gas tax. A similar natural gas tax levy of 3 per cent of the value of gas at the wellhead was recommended by Governor Daniel before without success.

The governor also suggested that the lawmakers reduce another state tax on natural gas production from 7 per cent to 5 per cent. He asked for a temporary increase in corporation franchise taxes, and a long-range increase in franchise rates on interstate corporations. In addition, he called for levying selective sales taxes.

The present \$70 million state deficit is behind these various new tax proposals.



# Progress of Regulation

## *Trends and Topics*

### Public Utility Status of Lessor of Facilities

THE owner of public utility property cannot ordinarily relieve himself of the responsibilities of a public utility by leasing the facilities to another. A Pennsylvania court recently applied this rule when it held that a land company was a public utility subject to the jurisdiction of the commission although it leased water facilities to another corporation (27 PUR3d 502). In this case there was the additional element of interrelationship of the corporations. The operator was said to be a nominal water company operating as an agent of the owner.

It was argued that because the commission was attempting to have the land company declared to be a public utility it should exercise jurisdiction over all owners of property used and useful in public service. The court, however, said that mere ownership alone has not in the past been considered by the commission as a reason in all cases for exercising its complete jurisdiction. The court knew of no action of the commission where it had promulgated a rule setting forth the circumstances under which it would exercise fully its jurisdiction over "owners" of public utility property. It could not be argued successfully under the facts established in the case that there was a denial of equal protection of the laws if the commission did not attempt to exercise to the full its jurisdiction over owners of all public utility property. The court found that the land company owned the predominant part of the property used in rendering public utility service, that it dominated and controlled the so-called "lessee," which was operated only for the benefit of the lessor, and that the lessee itself had nothing to look forward to in the future except its bare corporate existence.

### *Status under Federal Power Act*

A company owning facilities operated by its affiliate under lease for the transmission and sale of electric energy at wholesale in interstate commerce was held by the Federal Power Commission to be a public utility subject to its jurisdiction under the Federal Power Act (51 PUR NS 55). Here the com-



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mission referred to the definition in § 201(e) of the Federal Power Act containing the words "owns or operates facilities."

### *Subdivider Retains Utility Status*

The owner of a water system retaining full ownership of a plant and holding himself out to supply all persons residing in a certain area, according to the California commission, is operating a public utility even though actual management is turned over to a users' association during such period as the owner elects (77 PUR NS 436). Such an owner was a subdivider of real estate. He had installed a water system to serve part of a subdivision, and further developed the system as occasion required. When the system became burdensome to him and property owners took over responsibility as a "co-operative association," there was conflicting evidence as to the legal status of the "members" and the association.

### *Water System Leased to Membership Corporation*

The Oregon commission, on the other hand, held that a company which owned neither plant nor equipment for supplying water to its stockholders, but which leased such property from an individual and contracted with him to operate the plant, was not a public utility. It had effectually contracted itself out of any semblance of such status.

Moreover, the individual was the owner of springs and water mains which he had leased to the corporation to furnish water exclusively to stockholders. He was held not to be a public utility with respect to so-called lessees to whom he furnished water in violation of his contract with the corporation. He himself had no property which he could legally devote to the use of the public, and "one cannot devote to the public service property which does not belong to him." (14 PUR NS 459.)

### *Rulings in Carrier Cases*

The principles stated in these cases have also been applied in cases involving railroads and motor carriers. A railroad holding the legal title to an abandoned railroad branch line was held to be subject to the jurisdiction of the Missouri commission although the line had been operated only by a lessee company (PUR1917B 542).

The Ohio commission, in a case involving motor carriers, said that the fact that a business used motor common carriers to supply its transportation needs before instituting a new policy of leasing trucks and hiring their owners as drivers, when the carrier service became unsatisfactory, constituted evidence that the leasing device was used to evade public utility regulation (11 PUR3d 12).

The Pennsylvania commission asserted jurisdiction over rates of a company chartered to operate as a street railway company, although it had leased its facilities and franchises and was a nonoperating utility (25 PUR NS 239).

A lumber company owning a railroad and granting authority to a lessee to operate a motorcar over its tracks for the purpose of carrying passengers and

## PROGRESS OF REGULATION

freight in compliance with regulatory rules and law was held by the Oregon commission to be a common carrier (PUR1923C 125).

### *Truck Rental Business*

Obviously there is a difference between a company owning facilities such as a water system, leased to another for operation, and a company which is not engaged in any public utility business but sells or leases vehicles. The leasing of trucks or buses may be a lawful business not subject to regulation as a public utility enterprise.

The Washington commission held that an operation in which a railroad rents trucks and drivers from a corporation and assumes full responsibility and control over the trucks and drivers is an operation by the railroad, and the corporation providing the trucks and drivers is in no sense a carrier of merchandise (77 PUR NS 460).

The Florida supreme court in one case said that the services rendered or supplied and the acts performed by a truck operator lessor, along with the naked equipment, become of controlling weight in determining the status of the lessor. The amount of service determines whether the lessor is a carrier or is engaged in the private business of operating a truck rental service (96 PUR NS 562).

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## *Review of Current Cases*

### Franchise Contract Rates Are Enforceable Regardless of Low Return

THE Louisiana supreme court sustained the city of Monroe in litigation with United Gas Corporation over franchise contract rates which the company contended were confiscatory and should not be enforced. A lower court, reversed by the supreme court, had given judgment for the plaintiff company, enjoining the municipality from enforcing the franchise rates or interfering with rates to be established by the company. The franchise, which was drawn in 1947 after negotiations between the two parties, was granted in 1949 to run for a term of twenty-five years. It included a schedule of fixed rates for gas, with no provision for review, regulation, or revision.

The city observed that the rate agreement was undertaken pursuant to its pro-

prietary powers and not under its delegated authority to fix rates. It, therefore, claimed the benefits of its bargain.

The company pointed to a constitutional provision that the police power of the state shall not be abridged. It urged that the provision forbids a municipality, which is vested with authority to fix rates, from establishing irrevocable rates by contract, because this constitutes the surrendering or bartering away of its delegated police power. It was contended on this ground that the municipality's power to contract, in so far as rates are concerned, must remain subject to revision upward or downward.

#### *Delegated and Proprietary Powers*

The rate-making power, which belongs

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primarily to the legislature as inherent in the sovereignty of the state, may be variously delegated to municipalities, the court pointed out. Municipalities thus vested with the requisite authority may act in a dual capacity—governmental and proprietary—neither excluding the other. However, they may be held to be without authority to act in one capacity or the other where the power was never conferred, or, if conferred, was withdrawn. Where a municipality, in its governmental capacity, fixes rates by compulsion, the power is exercised irrespective of the consent of the utility, but rates thus established must not be so low as to result in confiscation of the utility's property.

On the other hand, the court declared, when rates are fixed by contract the municipality acts in a proprietary capacity, and enforcement of the rates is governed by the terms of the agreement. The question of confiscation then becomes immaterial.

State regulation of rates by compulsion is a police power, not to be confused

with the right of a city to exercise its contractual power to agree with a company upon the terms of a franchise. The exercise of the power to fix rates by agreement does not embrace any portion of the power to fix rates by compulsion.

### *Surrender of Police Power*

The constitutional prohibition against a surrender or abridgment of the state's police power does not mean that the power shall not be delegated to an administrative agency or to a municipality. It means that the legislature shall not irrevocably surrender the police power and that a delegation of such power shall always be subject to revocation by the legislature. Rejecting the contention of the company, the court held that the municipality's action in establishing rates by contract did not constitute a bartering away of its delegated police power.

The injunction issued below was dissolved, and the company's suit was dismissed. *United Gas Corp. v. City of Monroe*, 109 So2d 433.



## Telephone Rate Increase Improperly Withheld Pending Service Improvement

A LOUISIANA district court upheld the Louisiana commission (26 PUR3d 55) to the extent of finding that Southern Bell Telephone & Telegraph Company's rates should be increased to produce additional gross revenues of \$1,918,707. The court found, however, that the commission had improperly refused to effectuate the increase on the ground that the service was inadequate and that the company had arbitrarily curtailed a necessary expansion program. The court said that the adequacy of the service and the expansion program were not at issue before the commission in the rate hearing.

After discussing a Louisiana supreme

court decision (18 PUR3d 329) the district court concluded that the commission had used the proper formula and procedure in arriving at the rates to be charged.

It pointed out that the state supreme court had concluded that there is no constitutional requirement that every regulated company be allowed the same rate of return and that the peculiar situation of each utility, which is largely reflected in its cost of capital, dictates the level of its earnings. *Southern Bell Teleph. & Teleg. Co. v. Louisiana Pub. Service Commission et al.* No. 66,822, Division B, April 23, 1959.

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### Telephone Charges Not Violative of Internal Revenue Code

THE U. S. court of appeals affirmed a court dismissal of a complaint against a telephone company and the California commission for damages from discontinuance of service. The complainant had contended that the rates she had been charged were unlawful because they did not comply with provisions of the Internal Revenue Code relating to taxes on telephone calls, that the code taxes local telephone service and long-distance telephone service, and makes no provision for any third category in between. When the company based its charges upon three commission-approved rate schedules, she argued, it violated the federal taxing statute, and was unconstitutional.

The court held that the Internal Revenue Code did not limit state commissions in establishing schedules for intrastate telephone calls. The code imposes federal taxes, as it has a right to do, said the court. The commission fixes telephone rates, as it has a right to do. The commission's rates

have nothing to do with the federal tax, and the federal tax has nothing to do with fixing the rates.

The court went on to point out that federal power initially depends on the concept of interstate, not intrastate commerce, and what may affect it. No cause of action was stated on the facts alleged, and the dismissal was proper.

#### *Three-Judge Court*

Appellant had also contended that the district court had no jurisdiction to refuse to take steps to convene a three-judge court, once a demand had been made. The court disagreed again. The district judge had the duty to determine, it said, whether the complaint stated a claim upon which relief could be granted, before requesting a three-judge court. When the district judge found it did not, he was not required to comply with the request. His determination, of course, was subject to review on appeal. *Carrigan v. Sunland-Tujunga Teleph. Co.* 263 F2d 568.



### Rate Triggered under Favored-nation Clause Becomes Effective Gas Producer Rate

A FEDERAL appeals court vacated an order of the Federal Power Commission (22 PUR3d 94) which, in determining the effective producer rate on June 7, 1954, refused to recognize the triggering of an increase in a natural gas producer rate under a most favored-nation clause.

The commission had found that a rate of 8.997 cents per Mcf was the effective rate of Shell Oil Company on June 7, 1954, as established under a 1951 contract between Shell and Louisiana Natural Gas Company, a purchaser. The contract contained a favored-nation clause providing for escalation of the 8.997-cent price to the level established by the purchaser in

any subsequent contract for the purchase of gas within a 50-mile radius.

Under a 1943 contract with another producer, Louisiana Natural had agreed to a rate for a five-year period, with rates for subsequent five-year periods to be determined by agreement between the parties or by arbitration. In February, 1954, an agreement was entered into by the purchaser, pursuant to this 1943 contract, establishing a price of 12.5 cents per Mcf. It was undisputed that this purchase was within the 50-mile radius specified in the 1951 contract. Notwithstanding these facts, the commission had held that the sum actually collected and changing

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hands, the 8.997 price, was the effective rate of Shell on June 7, 1954.

The court ruled that Shell's effective rate on the critical date was a price of 12.5 cents.

What the rate was for Shell in its contract with Louisiana Natural depends upon the contract-established provisions rather

than on the fortuity of rates which were being actually paid on that date. The court was at a loss to know what the 1954 price agreement was if it was not an "entering of a contract" which activated the price escalation clause of the 1951 contract. *Shell Oil Co. v. Federal Power Commission et al.* 263 F2d 223.



### Commission Not Required to Adopt Permanent Rate Standards in Fixing Temporary Rates

THE New Hampshire supreme court dismissed an appeal from a commission order establishing temporary electric rates pending a decision on permanent rates. The court held that the commission could properly establish current rates as temporary rates, if it found that there was some danger that current rates might not produce the nonconfiscatory minimum provided for by statute, even though the only effect of the order would be to guarantee that the company would eventually receive the just and reasonable rates which would ultimately be fixed as permanent rates.

The state had argued that the commission had erred, in determining the need for temporary rates, by basing its decision on the previously established 5.65 per cent rate of return in the absence of evidence that such rate was reasonable. The court was unable to adopt the contention. In establishing temporary rates, it said, the commission is not required to adhere to the same standards as are applied in permanent rate cases.

For purposes of testing the validity of the current rates, the yardstick of a 5.65

per cent return which the rates were originally designed to produce was properly entitled to consideration.

The state also contended that the commission was without statutory authority to enter an order for temporary rates because the action had not been brought "upon motion of the commission or upon complaint." Again, the court disagreed. The occasion for an order for temporary rates pending a determination of permanent rates, it said, arises only where there is objection to the existing or proposed rates of a utility. The commission is authorized to investigate any proposed increase in rates, and to suspend the new rates pending such investigation. It may do so either upon its own motion, or upon complaint. The proceeding in such a case by its very nature does not originate with the utility itself. The court could see no reason to question the fact that the manner in which the proceedings originated answered the description of a proceeding in which temporary rate orders were authorized by statute. *Public Service Co. of New Hampshire v. New Hampshire*, No. 4708, April 21, 1959.



### Rate Misquotation No Basis for Damages

THE U. S. court of appeals affirmed a lower court's dismissal of a complaint against a railroad for damages resulting

from misquotation of freight rates. The plaintiff had contended that it had lost a bid for space heaters because of the rail-



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road's erroneous quotation of the freight rate. The plaintiff was not entitled to recover the lost profits, held the court.

The plaintiff argued that when a carrier through mistake or otherwise quotes a rate lower than that legally established, the shipper is charged with knowledge of the correct rate, but that when the rate quoted is higher, then only the carrier, and not the shipper, is conclusively presumed to know the rate it is legally entitled to charge.

One of the prime reasons for the Interstate Commerce Act provision requiring carriers to file rate schedules with the

commission and to keep such schedules open for public inspection, said the court, is to prevent discrimination. Since a carrier's rate as duly filed with the commission is the only lawful charge, the statutory provision is applicable to both higher and lower misquotations of the rate.

To hold that a carrier may be required to respond in damages where there was an erroneous quotation of a higher rate by the local agent, said the court, could conceivably open the door to the evils which applicable legislation is designed to prevent. *Silent Sioux Corp. v. Chicago & N. W. R. Co.* 262 F2d 474.



### Operating Ratio for Trucking Association

THE Florida commission authorized a trucking association to reinstate an 8.72 per cent increase in class and commodity rates which had previously been approved, and a 25 per cent increase in minimum charges per single shipment. The supreme court had reversed the original order, and the result had been a reinstatement of the case before the commission, in the same status which had prevailed prior to the issuance of the first order.

The commission was not satisfied with the contention of the applicants that small carriers should have an operating ratio of

85 and middle-size carriers an operating ratio of 90 to 93. Such ratios appeared to have been based on studies that were many years old and which might no longer be valid, pointed out the commission. A group operating ratio of 94.50 per cent for the participating carriers was considered fair and represented earnings that were compensatory and sufficient to keep the carriers as a group financially strong so that they would be able to render adequate and efficient service. *Re Florida Intrastate Rate Bureau*, Docket Nos. 5003-CCT, 5004-CCT, Order No. 3910-B, April 8, 1959.



### Contract Carrier Protection Not Improper

THE U. S. district court dismissed a complaint brought by a common motor carrier and an automobile manufacturer to set aside an Interstate Commerce Commission order denying the carrier's application for a certificate. It had been claimed that the commission's denial was contrary to the National Transportation Policy, and to commission precedents, in that it resulted in giving preference to

the existing contract carrier service.

Although one facet of the National Transportation Policy is to protect common carriers, the court commented, it does not follow that the policy encompasses an unnecessary expansion of a common carrier service at great expense to existing contract carriers. It had been shown that the shipper was willing to continue using the contract carrier's service and that the

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granting of the common carrier application to serve the same area would have diverted a substantial portion of traffic from the contract carrier. The commission, said the court, had not based its order solely on the adequacy of the existing service, but, rather, had balanced the advantages of and the needs for the proposed carrier service against the impairment to the existing carrier service.

The shipper's contention that it should not suffer the vagaries of negotiating with a contract carrier, where there was a common carrier able and willing to perform

the service if it received certification, had little substance, in the court's eyes. The contract carrier presently serving the shipper, because of its great dependence on the shipper, did not have a strong bargaining position and would not, rationally, refuse reasonable offers. The shipper, said the court, was not really seeking to avoid contract negotiations by requesting common carrier service, but was, in effect, just requesting another carrier, for which the commission had properly found no need. *Associated Transports, Inc. et al. v. United States et al.* 169 F Supp 769.



### Court Rules on the Long and the Short

THE U. S. court of claims held that the ICC's service order authorizing payment for railroad cars actually furnished is applicable only in cases in which railroads are unable, because of unavailability of cars of the lengths ordered, to comply with a shipper's request.

The case involved a railroad's bill for transporting freight for the federal government, based upon the applicable minimum charge for freight cars of the lengths actually used for the transporta-

tion. Government agents had ordered shorter cars which would have been long enough to contain the goods actually shipped.

The court held that the railroad should have charged only for cars of the lengths ordered, and not for cars of the length actually furnished and used. The General Accounting Office was justified in recovering the difference by deducting from subsequent charges. *Boston & Maine R. Co. v. United States*, 169 F Supp 957.



### Certificate to Operate over Unpaved Highway Set Aside

THE Texas court of civil appeals reversed a commission order amending a bus certificate to include operation between points over a highway which had not been completely constructed. Approximately 34 miles of a 55-mile portion of the highway were still unpaved on the date the commission issued the certificate. No paving or plans for the stretch had been approved and no contract had been let. No funds were allocated for paving.

The court held that the application was

premature, and that the commission was not authorized to grant it. In order for the commission to have jurisdiction to authorize operation over a highway which is not completely constructed at the time of entry of the order, said the court, there must be in existence sufficient facts to enable the commission to anticipate the character of the traffic to which the road would be subjected. *Sabine-Neches Trailways, Inc. v. Texas R. Commission*, 321 SW2d 170.



## Interdependent Relationship between Return and Service

THE New Jersey superior court remanded a commission order increasing sewer rates, with directions to determine whether alleged service improvements had been made, and their effectiveness. The sole ground of appeal was that the sewer rate increase was unjustified because the company had not been rendering adequate and proper service.

The duty to provide safe, proper, and adequate service is an element which the commission must take into consideration in determining what is a just and reasonable rate of return, said the court, citing "*Rate of Return*," by Ellsworth Nichols, page 296. The relations between adequate, efficient service and a fair return are mutual and interdependent.

The court recognized that the commission has a large measure of legislative discretion in the exercise of its rate-making power, controlled by the statutory standard. The commission is free to make pragmatic adjustments called for by particular circumstances, but is required to make an express finding on the adequacy of service.

The court went on to detail some of the things the commission could justifiably do, with reference to service deficiency. The commission, in a rate case, could conclude that the issue of adequacy of service was collateral and would so complicate the rate case that it should be taken care of upon complaint in a separate proceeding. On the other hand, the commission would be

privileged, in a case where the utility had failed over a long period to provide safe, proper, and adequate service and had flagrantly disregarded commission orders to improve the service, to refuse any rate increase as the most practical means of getting the utility to remedy the deficiency.

### *Financial Inability to Correct Defects*

Again, the commission might conclude that the inadequate service rendered was due to the company's need for additional revenues for capital expenditures, and determine that the withholding of rate relief might cause further deterioration in service. Where the utility promised to make necessary improvements, the commission might deny the application, granting leave to renew after it had had an opportunity to see if the improvements were carried out and the service made adequate and proper.

Or, where the utility admitted that the service could be improved but claimed financial inability to do so, the commission might allow only such rates as would represent the present value of the service, until such time as the service was made reasonably adequate. Finally, the commission might grant emergency rate increases on the condition that if the utility failed to render reasonable service, the rates would be canceled. *Township of Lakewood v. Lakewood Water Co. et al.* 148 A2d 885.



## Strike Violence Does Not Justify High Carrier Charges

THAT a shipper is strike-bound is no justification for a carrier to impose higher transportation charges than its filed tariff provides. A federal appeals court affirmed a lower court conviction of a motor carrier which received \$1,000 per

shipment over and above its tariff rate for shipments from a strike-bound plant. It was apparently immaterial that the carrier sustained damage to equipment at the hands of violent pickets.

The Interstate Commerce Act prohibits

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a carrier from charging or receiving greater or less compensation "for transportation or for any service in connection therewith" than that specified in its filed tariffs.

While the carrier recognized that the letter of the statute covered these charges, it urged that the statute was not intended to extend to such incidents. Admittedly, said the court, the Interstate Commerce Act was aimed primarily at protecting shippers from rate discrimination but it specifically prohibits greater as well as less or different charges. The act also makes

it the duty of carriers to charge only just and reasonable rates. Actual discrimination, therefore, is not necessary in actions under the act.

The court pointed out that the "Impracticability of Operation" clause of the carrier's tariff gave it only a right to refuse to enter the strike-bound plant, not a right to declare such transportation an operation separate from the remainder of the journey and thus outside the rate restrictions included in the tariff. *United States v. Schupper Motor Lines, Inc.* 262 F2d 859.



### Deposit Not Required for Electric Service Extension

**I**N ordering an electric company to extend existing facilities to a residential consumer without a deposit, the New Jersey commission said that a rule which would require a deposit by a home owner applicant for such an extension was violative of the letter and spirit of the governing statute.

The board recognized and stressed the fact that the doctrine of public convenience and necessity has significance for rural

residents seeking utility services. Thus, it said, because merely one or two persons seek the extension, the company cannot ignore the interests of rural development so long as the overall return is not adversely affected, its financial condition warrants the original expenditure, and the extension is within a reasonable distance of existing facilities. *Re Public Service Electric & Gas Co. Docket No. 11030, March 30, 1959.*



### Instalment Payment of Construction Contribution Held Managerial Function

**W**HETHER or not a utility should permit applicants for service extensions to pay required construction contributions on the instalment plan, or on any other basis, is not a matter within the jurisdiction of the commission, the Wisconsin commission declared. If a utility desires, it may provide for instalment payments of contributions by appropriate extension rule. The decision, however, is a function of management.

The commission, therefore, dismissed a petition by a property owner seeking an extension of service and urging that he be

permitted to pay the required contribution in instalments as is sometimes done with special assessments.

An extension rule under which city water would be provided to suburban areas was considered just and reasonable. Under the rule, 65 per cent of the amount required from residents in any block was required to be deposited before a construction contract would be awarded. This would result in total payments to the utility amounting to somewhat less than the assessment would be at the city rate. *Re Holt, 2-U-5024, April 9, 1959.*

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### Use of Public Places by Company's Telephone Lines Not Municipal Affair

THE California supreme court held that the construction and maintenance of telephone lines in the streets and other public places within a municipality are today matters of state concern and not a municipal affair. A city may not exclude such lines, essential to furnishing communication services to people throughout the state, from its streets.

A statute authorizing telephone com-

panies to construct lines along and on any public road or highway was held to constitute a continuing offer which, when accepted by construction and maintenance of the lines, gives a franchise from the state to use public highways, without the necessity of a grant by any subordinate legislative body. *Pacific Teleph. & Teleg. Co. v. City and County of San Francisco*, 336 P2d 514.



### Court Refuses Jurisdiction over Combined Billing Case Previously Decided by Commission

A NEW YORK court dismissed an action by a consumer against an electric company to recover as damages the cost of constructing a conduit to permit combined billing. The basic issue in the action was whether the plaintiff had a right to combined billing at its industrial plant. A previous complaint before the commission involving the same basic issue had resulted, upon investigation, in denial of relief and denial of a formal hearing.

The court sustained the plaintiff's contention that this was not a case of primary administrative jurisdiction. It was not the validity of the company's rules which was questioned, but the allegedly discriminatory manner in which concededly valid rules had been applied. This is not to say, it was pointed out, that the court should entertain the instant action.

#### *Right to Action Abandoned*

Although the action might properly have been maintained before the court in the first instance, the consumer abandoned its right to do so by first taking the matter before the commission and obtaining a

final decision from that forum, the court held. Nor was the completeness or finality of the administrative determination in any way qualified by the commission's statement in its decision that it did not have jurisdiction to order refunds or assess damages. If the plaintiff disagreed with the commission's determination, the remedy was by review and not by a new action to decide the same basic issue that the commission had decided. Additionally, mandamus was available to determine the plaintiff's right to a formal administrative hearing.

The court also held that the consumer had failed to state facts sufficient to constitute a cause of action. It failed, more particularly, to state facts sufficient to show that it had been forced to install the conduit. The facts pleaded indicated, in the court's view, that the plaintiff had voluntarily elected to pursue its course of action because of long-range economic advantage rather than immediate business compulsion. *Equitable Paper Bag Co., Inc. et al. v. Consolidated Edison Co. of New York, Inc.* 183 NYS2d 366.



## Other Recent Rulings

**Notice Held Adequate.** A federal appeals court ruled against a contention by an applicant for VHF Channel 9 in Hatfield, Indiana, that a Federal Communications Commission order deleting the channel from Hatfield was void because of the commission's failure to give notice that the deintermixture program might require deletion of the channel, where the commission's notice had proposed to require all commercial television operations in the area to utilize UHF channels, and where the applicant had actual notice of an intervenor's proposal to reallocate or delete Channel 9. *Owensboro on the Air, Inc. et al. v. United States et al.* 262 F2d 702.

**Burden of Proof.** The U. S. district court held that an applicant for irregular route operating rights as a common carrier of petroleum from a recently constructed oil refinery had the burden of showing that the proposed service was or would be required by present or future public convenience and necessity. *Quickie Transport Co. v. United States et al.* 169 F Supp 826.

**ICC Certificate Proper.** The U. S. district court held that an ICC certificate authorizing a railroad subsidiary to extend service as a contract carrier for a single automobile manufacturer for the transportation of a single commodity was proper, since it was in the public interest and in keeping with the National Transportation Policy, affording the shipper adequate, economical, and efficient service in a specialized field, and at the same time effecting no encroachment on the operations of other carriers or transportation media. *American Trucking Associations, Inc. v. United States et al.* 170 F Supp 38.

**Agency Station Discontinuance.** The Mississippi supreme court could find no evidence to support a commission denial of a railroad proposal to substitute a prepay station for an agency station where, in the court's view, the facts clearly showed that the public convenience did not require the agency and where, moreover, the agency station resulted in substantial loss to the company. *Mississippi Pub. Service Commission v. Illinois C. R. Co. et al.* 108 So2d 573.

**Transit Operating Ratio.** The Illinois commission approved a transit company's application for increased fares, resulting in an operating ratio of 94.63 per cent, which the commission considered reasonable. *Re Decatur City Lines*, No. 45644, April 8, 1959.

**Telephone Company Return.** The Illinois commission considered a return of 4.04 per cent on a telephone company's fair value rate base reasonable. *Re Champaign County Teleph. Co.* No. 45410, April 8, 1959.

**Extended Area Telephone Service.** The Illinois commission approved a telephone company's request to establish extended area service within certain areas as in the public interest and in the interest of the customers to be served, upon a showing that the service would provide toll-free calling privileges which would better meet customers' day-to-day requirements, thus increasing the number of calls and adding greatly to the value of the service. *Re Illinois Bell Teleph. Co.* No. 45714, April 8, 1959.

**Return Determination Unnecessary.** The Missouri commission said that it was

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not necessary to determine with precision the exact amount the owners of a telephone system would earn on a reasonable value of the property or upon a depreciated original cost rate base where it appeared that the proposed rates would not produce an excessive rate of return in any event. *Re Fordland Teleph. Co. Case No. 14,099, April 2, 1959.*

*System-wide Rates.* The Nevada commission held that intrastate rates over an entire telephone system should be at the same level and that there should not be a substantial differential between various areas served by the company within its certificated territory. *Re California Interstate Teleph. Co. I&S Docket No. 203, March 24, 1959.*

*Transit Rates Go Up.* Philadelphia Transportation Company obtained the Pennsylvania commission's approval of a rate increase, raising city cash fares from 20 to 25 cents, where the proposed rates would provide a net return of only \$2,760,000 on an original cost rate base of about \$72 million and a trended original cost rate base of approximately \$145 million. *Pennsylvania Pub. Utility Commission v. Philadelphia Transp. Co. C. 17075 et al. March 2, 1959.*

*Mutually Exclusive Statutes.* The U. S. court of appeals held that a statute authorizing a proceeding to enjoin, set aside, annul, or suspend a Federal Communications Commission order and a statute detailing appeal procedure from a commission order are mutually exclusive. *Friedman, Trustee v. Federal Communications Commission et al. 263 F2d 493.*

*Public Good.* The New Hampshire supreme court, reversing a commission dismissal of a petition by a railroad to aban-

don agency service at a certain station, commented that the public good does not require that public utilities be unreasonably restrained of liberty of action, or unreasonably denied the rights, as corporations, given to corporations not engaged in the public service. *Boston & Maine Railroad v. New Hampshire, 148 A2d 652.*

*Electricity Exported.* Upon a finding that the sufficiency of the supply of electric energy in the United States would not be impaired, the Federal Power Commission authorized a Corpus Christi power company to provide 10 million kilowatt-hours of energy per year for the city of Acuna, Mexico, at a maximum rate of transmission of 2,500 kilowatts, doubling the long-standing yearly exports to Acuna of 5 million kilowatt-hours at a rate of 1,500 kilowatts. *Re Cia. Luz y Fuerza Motriz de Acuna, S. A. et al. Docket No. IT-5024, March 16, 1959.*

*Value for Railroad Reorganization Purposes.* The U. S. district court held that valuation of a property for purposes of a railroad reorganization is primarily based on earning power, which involves, among other things, the expected volume of business, operating cost, the type of commodities to be carried, and the general business conditions of the area to be served. *Re Lackawanna & W. V. R. Co. 169 F Supp 941.*

*Certiorari Not Available.* The Mississippi supreme court held that certiorari, an extraordinary writ, could not be employed to review a commission order if the legislature had provided a plain, speedy, adequate, and complete remedy by direct appeal and had provided for a reporter's transcript of the testimony taken before the commission which could

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not be utilized on appeal by certiorari. *Mississippi Valley Gas Co. v. City of Jackson*, 109 So2d 637.

*Mandamus in License Case.* A federal appeals court refused to hurry the Federal Communications Commission in its inquiry respecting the regulation of businesses which relay television signals to communities otherwise unable to obtain television service; accordingly, an order in the nature of a writ of mandamus was denied to license applicants seeking action on their applications. *Mesa Microwave, Inc. et al. v. Federal Communications Commission*, 262 F2d 723.

*Motion to Produce Evidence.* The New Hampshire supreme court denied a motion seeking to have an electric company produce evidence of performed operating results in pending appeals from commission orders fixing temporary and permanent rates where such evidence did not appear to be so significant as to warrant a remand of the appeals to the commission for its reception and consideration. *Public Service Co. of New Hampshire v. New Hampshire*, No. 4743, April 21, 1959.

*Boat Sight-seeing Certificate.* In authorizing an excursion and sight-seeing service in San Francisco waters, the California commission asserted its jurisdiction notwithstanding a contention grounded on the California Streets and Highways Code which gives another department exclusive jurisdiction over toll ferries; the proposed sight-seeing service was held not to be a toll ferry. *Re Lewis*, Decision No. 58056, Application No. 40097, February 24, 1959.

*Warehouse Rate Increase.* Pending the

presentation of a rate study to support a permanent rate increase, the California commission authorized an interim increase for warehousemen, which would afford somewhat less than the proposed average rate of return of 9.65 per cent and operating ratio of 89.6 per cent. *Re Burbank Refrigerating Co. et al.* Decision No. 58169, Application No. 40384, March 24, 1959.

*Refund Costs.* Although the Colorado commission authorized a gas company to use the interest component of a refund from a supplier to meet the cost of refunding to consumers, it would not permit the company to draw from the fund itself in order to pay the cost of opposing supplier rate increases before the Federal Power Commission, since the latter cost is allowed in the cost of service. *Re Citizens Utilities Co.* Application No. 15420, Decision No. 52002, April 1, 1959.

*Retention of Refund.* A gas company which had absorbed an increased cost of purchased gas was permitted by the Colorado commission to retain a modest refund from the supplier, rather than to pass it on to consumers, since the retention of the refund would raise the company's rate of return to only about 4 per cent. *Re Eastern Colorado Utility Co.* Application No. 16883, Decision No. 52001, April 1, 1959.

*Need Held Primary.* The Massachusetts commission commented that the fact that a railroad can save money by discontinuing a service does not alone justify the discontinuance, since it is the need for the service which is of primary importance. *Re Boston & A. R. Co. et al.* DPU 12796, April 14, 1959.



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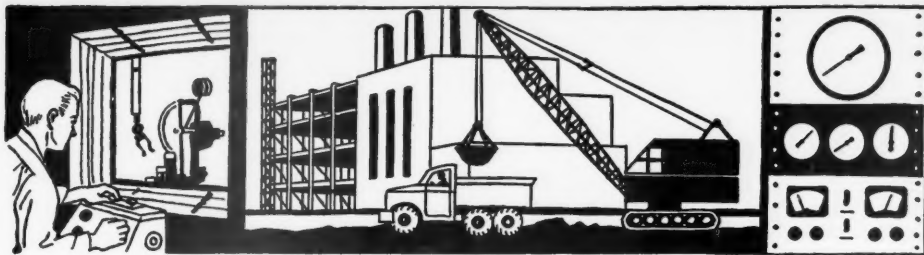
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425 THIRTEENTH STREET, N. W.  
WASHINGTON 4, D. C.





## Industrial Progress

### \$93,000,000 Program Planned By Delaware Pwr. & Lt.

DELAWARE Power & Light Company recently announced plans to spend more than \$93,000,000 during the five-year period 1959 through 1963 for new construction, new tools, new equipment and facilities.

Expressing continued confidence in the future progress and prosperity of Delmarva Peninsula, F. P. Hyer, company president, stated that the expenditure of these funds will be made in projects which will enable the company to meet future requirements for increased service to present customers while providing for the needs of new customers. He expressed the belief that Delmarva Peninsula would continue to be one of the fastest growing areas in the nation.

For the most part, projects calling for a general, system-wide building up of service capacities is planned. Continued expansion of the 138,000 volt transmission system; extension and expansion of both electric and gas transmission and distribution lines and mains; new substations and additions to present substations; new larger capacity transformers as well as provisions for extension of service to individual customers and new developments.

The major construction project in this \$93-million expansion program is the addition of a 150,000 kilowatt generating unit at the Edge Moor Power Station. It is expected that construction of this fourth unit will get underway during the summer of 1960 for initial operation during the summer of 1962.

This will be the largest unit in the system having almost twice the capacity of the largest generating unit now in service.

At the present time, preliminary work on the construction of an additional floor and other improvements

to the general office building at 600 Market Street is underway while, at the same time, the addition to the company's operations building at 630 West Front Street is nearing completion.

Population increases and greater use of the company's services present a challenge, Mr. Hyer pointed out, but in any challenge there is opportunity; an opportunity to serve and to grow along with the area we are serving.

### Washington Natural Gas Increases Construction Program

AN increase of nearly two million dollars in expenditures for new natural gas construction in 1959 was the highlight announcement of the annual meeting of stockholders of Washington Natural Gas Company in Seattle recently.

"Last fall the directors approved a 1959 construction budget of \$5,610,000," said C. M. Sturkey, president. "The mounting demands from builders and from the public at large for additional natural gas service caused the directors later to increase the year's budget to \$7,542,000."

### Anniston Plant New Milestone In Anchor Metals' Growth

THE new Anniston, Alabama division of Anchor Metals, Inc. of Hurst, Texas will begin partial production around August 1st, vice president J. O. LeGate has announced, following acquisition of a site formerly owned by J. I. Case Co., announced earlier this year.

Anchor Metals is engaged in the design and manufacture of steel electrical transmission towers and switchyard structures, and since the firm was founded at Hurst in 1953, it has experienced rapid growth and expansion.

The Anniston plant will serve the southeastern area of the United States.

A midwest division was opened at Fort Madison, Iowa in 1957. Administrative and engineering offices and testing grounds are located at Hurst, Texas, midway between Dallas and Fort Worth.

Anchor Metals was founded at Hurst in 1953 by Clyde F. Mooney, president of the firm, and has experienced a remarkable and steady growth and expansion since that time.

From a modest beginning, Anchor has expanded its operation to Fort Madison in October, 1957 and then to Anniston.

From an initial \$200,000 contract to furnish towers to Texas Electric Service Co. in the summer of 1953, Anchor's sales have shown a tremendous increase each year. During that period, Anchor climbed from 11th in a field of 11 firms in the electrical steel transmission tower industry to a strong third, ranking only behind the two industry giants, American Bridge Division of U. S. Steel, and Bethlehem Steel, according to the announcement.

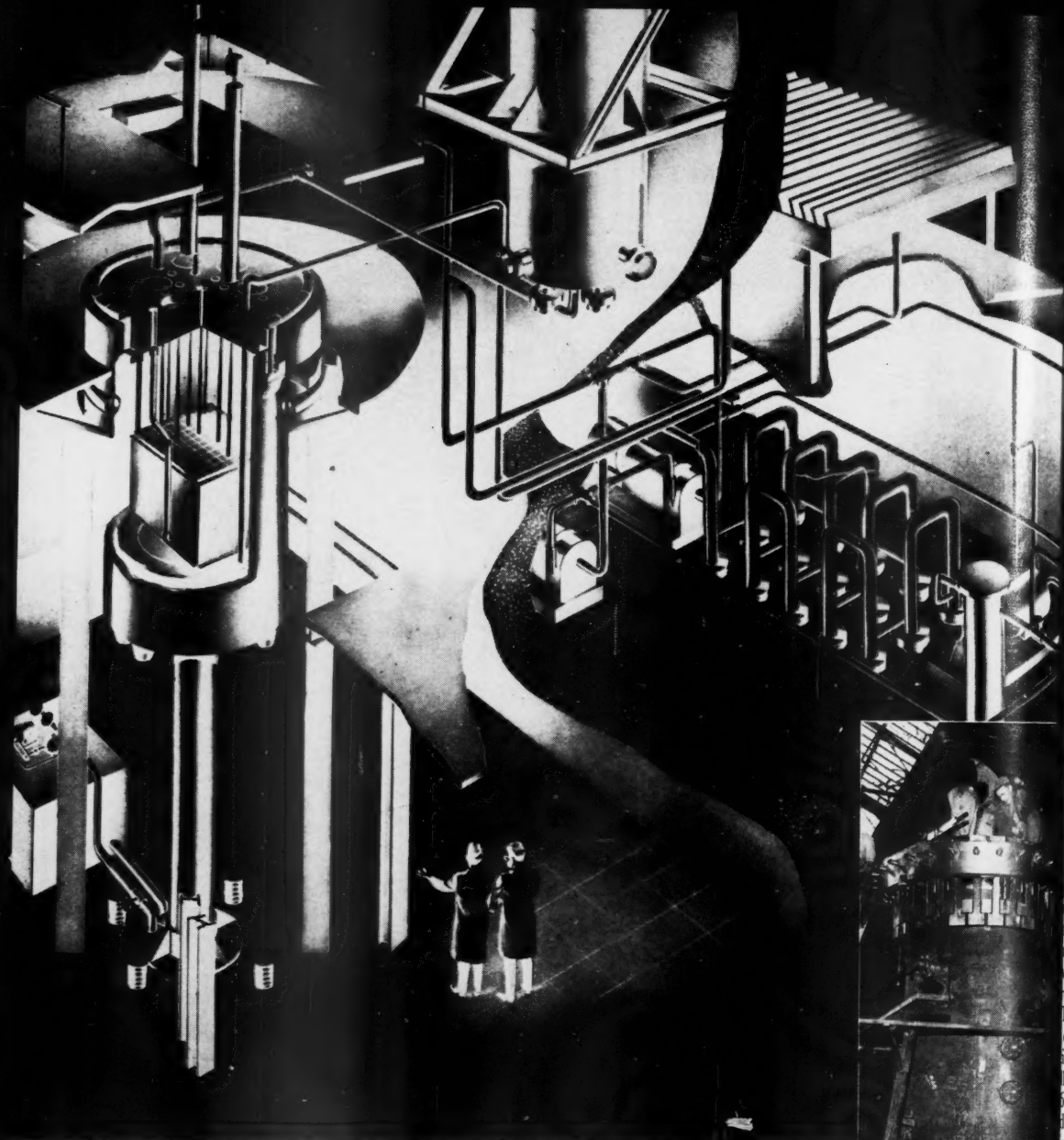
### Gas Industry Heats 19 Million Homes: Gain Of 6 Per Cent Made In Past Year

THE nation's gas utility companies added 1,079,000 new residential heating customers during 1958 and increased the number of gas-heated homes by 6 per cent to establish a record total of 19,003,000, the American Gas Association reports.

Nearly 65 per cent of all residential gas customers now heat their homes with gas, a gain of 2.3 per cent from 62.6 per cent a year ago.

The gas trade association estimates that 4 million new gas house-heating customers will be added during the next three heating seasons. New homes are expected to account for 2.3 million, or nearly 60 per cent, while

(Continued on page 23)



## FIRST EVER BUILT

—this high-temperature nuclear test reactor was developed by Knolls Atomic Power Laboratory to confirm design data for reactor cores of the submarine Triton. Vital core components and instrumentation are housed in a 32 1/2-ton stainless steel pressure vessel. Required to withstand 550 F., 1,500 psi, this vessel and its novel, quick-opening closure were designed and fabricated for KAPL by The M. W. Kellogg Company.

Additional examples of Kellogg's ability to design and fabricate nuclear equipment to the most exacting standards include the primary coolant stainless piping for two other nuclear plants. Kellogg is also designing and fabricating heat exchangers for still another nuclear plant. Kellogg's Fabricated Products Sales Division welcomes inquiries for the design and fabrication of nuclear equipment.

The Proof Test Reactor Pressure Vessel, with quick-opening closure, in Kellogg's Jersey City, just prior to shipment.



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## INDUSTRIAL PROGRESS—(Continued)

versions from other fuels will account for the remaining 1.7 million. A.G.A. noted that the new figures represent dwelling units rather than units of gas heating equipment. Many homes utilizing wall furnaces, space heaters or floor furnaces employ more than one heating unit. The A.G.A. report also excludes homes heated by (bottled) gas and dwelling units in apartment houses or other multiple-unit structures heated by central systems.

More than one-quarter of the new heating customers the gas industry expects to add during the next three years will be located in the East North Central area where 1.1 million new installations are anticipated. This area includes Illinois, Indiana, Michigan, Ohio and Wisconsin.

The rapidly-growing Pacific region, covering California, Oregon and Washington, will rank second, with an estimated 628,000 additions. The Middle Atlantic states of New York, New Jersey and Pennsylvania will add 6,000 new heating customers by the end of the 1961-62 season.

A.G.A. reports that the South Atlantic area has moved into fourth place among regions in which the industry expects the largest growth in house-heating. A new heating equipment market is being established in Florida where heavily populated areas will begin receiving natural gas by mid-summer. Florida, which now has approximately 105,000 gas heating customers, will gain an estimated 148,000 new heating customers during the next five years.

The largest gain in any single state expected in California where an estimated 552,000 additional dwellings will use gas heat by the end of the 61-62 season. Illinois will rank second with 398,000 new installations, Michigan will be third with 292,000 and New York and Ohio will tie for fourth place with 258,000 each.

Complete or partial restrictions on installation of new heating equipment still were in effect for 53 utilities at the end of November, 1958, according to A.G.A. These companies, serving 5.3 million households throughout the country, represent 18.6 per cent of the industry's total residential customers. A year ago, 55 companies serving 18.8 per cent of the nation's residential gas customers reported no restrictions.

The A.G.A. study was based on data submitted by individual utilities which indicated the existence or absence of restrictions, as well as expected new installations and the number of exist-

ing residential users and heating customers. Industry totals are developed from reports received from responding companies and from estimates covering non-responding companies, thus representing the entire gas utility industry.

Additional data may be obtained from Bureau of Statistics, American Gas Association, 420 Lexington Ave., New York 17, N. Y.

### Story Of Power Piping For Eddystone's Unit No. 1 Described In New Brochure

THE story from material selection to erection of stainless steel power piping for the most severe temperature-pressure conditions of any existing utility (1200°F. and 5000 psi) is told in a new brochure just published by The M. W. Kellogg Company, New York, a subsidiary of Pullman, Incorporated. It describes the super-critical piping project for the Philadelphia Electric Company's new 325,000 Eddystone Plant No. 1 on the Delaware river.

The 12-page brochure gives details of the services M. W. Kellogg performed: thorough metallurgical studies; piping stress analysis; writing of special material specifications for the austenitic steel used in the main steam piping system; fabrication of the plant's eleven complete piping systems at Kellogg's Jersey City plant; erection at Eddystone of the plant's eleven critical piping systems under conditions more rigid than any previously required in a central station generating plant. A photo coverage of fabrication and erection of the piping systems illustrates the important role the Kellogg-patented K-Weld played both in piping fabrication at the shop and erection of the piping systems in the field. Of the 432 K-Welds of the eleven major systems, 190 were made in the field.

For a copy of "The Eddystone Story: Central Station Power Piping for Super-critical Service," write The Fabricated Products Division, The M. W. Kellogg Company, 711 Third Avenue, New York 17, N. Y.

### Switchgear Application For Delta-Star's New Powerupter

DELTA-STAR Electric Division, H. K. Porter Company, Inc. has furnished metal-enclosed switchgear with the new Powerupter. This air switch-mounted device is capable of inter-

(Continued on page 24)

## Also Use ARMY and NAVY JAQUES Hydraulic EARTH AUGERS



\*Pole-setting attachment optional.

### ARMY REPORT ON JAQUES KJ-254\*\*

"There was a performance test on Pilot Model (Jaques Earth Auger), Model KJ-254, built by Texoma Enterprises, Inc. This test performed in accordance with Military Specification Mil-A-516B, paragraph 3.9 through 3.9.2.

"This test was performed in sandy, gravelly, red clay, hard and dry to blue silty clay at bottom of hole. Average time per hole for 25 consecutive holes was 78 seconds. Average depth of holes was 67.2 inches. Machine functioned at normal temperature."

\*\*JAQUES newly developed Model TJ-254 is 2 1/2-TIMES FASTER than Model KJ-254!



Some of 29 JAQUES TJ-254's NAVY bought.

### WHY BUY JAQUES?

1. JAQUES Augers have finger-tip, feather-touch controls...only 3 primary adjustments for easy, simple operation...Mount on standard trucks...
2. JAQUES drill holes up to 60" diameter...up to 25' deep in toughest soil...even in rock...FASTER, CHEAPER...
3. JAQUES have fewer moving parts for longer life...lower maintenance and operation costs...less "down time"...
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## INDUSTRIAL PROGRESS—(Continued)

rupting loads of 600 amperes without external arcing or emission of smoke.

Current is shunted through device as switch opens. Arc is breached between a mechanism-activated contact and a stationary one, is quenched by gas-evolving lining of porcelain-enclosed chamber.

The Powerupter is completely self-contained, uses no oil or gas for arc interruption and requires no maintenance during its normal life. Besides its new switchgear application, the device is also available for outdoor switches at voltages up to 34.5 Kv.

### Public Service Co. of N. H. Has \$16,000,000 Program

"PLANT expansion to handle the constantly growing consumer demands for electricity will call for the expenditure by Public Service Company of New Hampshire and its subsidiaries of more than \$16,000,000 in 1959," President Avery R. Schiller told stockholders at the Company's 34th Annual Meeting.

More than 80 per cent of the 3,150,000 shares of outstanding common stock were represented at the meeting,

either in person or by proxy. The representation covered all of the 49 states, Hawaii, Puerto Rico, the Canal Zone, the Virgin Islands, and several foreign countries.

"The exact timing of the offering of new securities to the public and the proportion of bonds and common stock in the offering will not be determined finally until the earnings prospect is clarified itself," Mr. Schiller said.

### Preformed Introduces "Alumoweld" Line of Fitting

A BROADER selection of material is opened to electric utility and telephone engineers with the recent introduction by Preformed Line Products Company of Splices, Armor Rods, and "Guy-Grip" dead-ends made of "Alumoweld," a new type of steel wire having a thick coating of aluminum which is particularly suited to conditions requiring high conductivity, extra strength, and corrosion resistance.

The new line offers the only fittings developed of "Alumoweld" specifically to secure "Alumoweld" strand. Typical of all Preformed products, the "Alumoweld" series is designed to hold the full rated strength of the compatible strand.

Sizes are available to accommodate all 3- and 7-wire conductors and girders of strand sizes which are currently being offered in the new "Alumoweld" material.

For further information, write Preformed Line Products Company, 5349 St. Clair Avenue, Cleveland, Ohio.

### Aluminum Coated Wires And Wire Products

ACCO ALUMINIZED Steel Wire and Wire Products—steel core wire for ACSR; steel strand guy wire; overhead ground wire; tie wire; messenger wire; telephone wire; chain link fabric and barbed wire—for industrial, institutional and residential uses have been graphically presented in a 6-page folder, DH-5371.

Issued by the Page Steel and Wire Division, American Chain & Cable Company, Inc., Monessen, Pa., it lists the properties and applications of the widely diversified hot-dip, aluminum coated wires and wire products which combine the strength of steel and the corrosion resistance of aluminum in one end product.

(Continued on page 26)

*This is not an offer of these Securities for sale. The offer is made only by the Prospectus.*

#### NEW ISSUE

703,485 Shares

## Florida Power Corporation

### Common Stock

(Par Value \$2.50 Per Share)

Florida Power Corporation (the "Company") is offering to the holders of its Common Stock the right to subscribe for 703,485 additional shares of Common Stock at \$25 per share at the rate of one share for each twelve shares held of record at the close of business May 14, 1959, with privilege of over-subscription, subject to allotment, as set forth in the Prospectus. Subscription Warrants evidencing such rights will expire at 3:30 P.M., New York Time, June 3, 1959.

### Subscription Price \$25 per Share

The several underwriters have agreed, subject to certain conditions, to purchase any unsubscribed shares and, during and after the subscription period, may offer shares of Common Stock as set forth in the Prospectus.

*Copies of the Prospectus may be obtained in any State in which this announcement is circulated from only such of the underwriters, including the undersigned, as may lawfully offer these securities in such State.*

Kidder, Peabody & Co.

Merrill Lynch, Pierce, Fenner & Smith  
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Bear, Stearns & Co.

Goldman, Sachs & Co.

Hornblower & Weeks

W. C. Langley & Co.

Paine, Webber, Jackson & Curtis

Smith, Barney & Co.

Wertheim & Co.

White, Weld & Co.

May 15, 1959.



# atomic progress

THROUGH



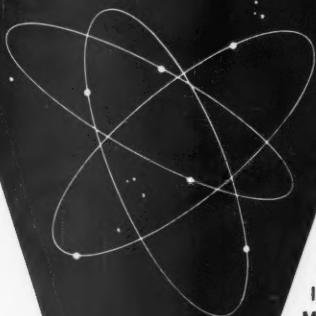
# pioneer

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In 1952 Pioneer joined with other groups, all reporting to the Atomic Energy Commission, for constant study of atomic energy application. Today Pioneer is qualified as a consultant to industry in the application of atomic reactor systems to the generation of electric power. Presently, Pioneer is acting as architect-engineer and supervisor of construction of the 66,000 kw commercial atomic power plant shown here. Allis-Chalmers Mfg. Co. is the prime contractor. Scheduled for 1962 completion, the plant, for the Northern States Power Co., will be known as the "Pathfinder".

Organized as Central Utilities Atomic Power Associates, these utilities will share in the research and development costs: Northern States Power Co., Central Electric and Gas Co., Interstate Power Co., Iowa Power and Light Co., Iowa Southern Utilities Co., Madison Gas and Electric Co., Mississippi Valley Public Service Co., Northwestern Public Service Co., Ottotail Power Co., St. Joseph Light and Power Co., Wisconsin Public Service Corp. PIONEER SERVICE & ENGINEERING CO., 231 South La Salle Street, Chicago, Illinois

## NEW!

Write for 40-page booklet, "Pioneering New Horizons in Power". Describes, illustrates Pioneer's engineering services, and corporate services, from financing to operation.



Sketch of "Pathfinder"  
commercial atomic power plant





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- *Electronic Data Processing*
- *Financing*
- *Gas Supply Problems*
- *General Management*
- *Industrial Relations*
- *Insurance*
- *Public and Stockholder Relations*
- *Purchasing, Expediting and Inspection*
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## INDUSTRIAL PROGRESS—(Continued)

### Management Foundation Names Top Companies In The Public Utilities Industry

THE names of companies which it has certified to "Excellent Management" in their respective industry the year 1958, have been announced by the American Institute of Management, a not-for-profit research educational foundation devoted to the advancement of management.

The citations, based on the Institute's continuing analysis of corporations in the United States, Canada and Europe, are designed to "bring deserved recognition to those companies whose managements are doing most to increase productivity, with accompanying benefits to employees, shareholders, their plant communities and to the economy as a whole."

Audited according to the Institute's point system appraisal in 10 key management functions, the following companies studied by A. I. M. in this industry achieved more than the minimum 7,500 points for excellence out of a possible 10,000:

Alabama Power Company  
Arkansas Louisiana Gas Company  
American Electric Power Company, Inc.  
Arizona Public Service Company  
Atlantic City Electric Company  
Baltimore Gas and Electric Company  
Boston Edison Company  
Central Hudson Gas & Electric Corp.  
The Cincinnati Gas & Electric Company  
The Cleveland Electric Illuminating Company  
Columbus and Southern Ohio Electric Company  
Commonwealth Edison Company  
Consolidated Edison Company of New York, Inc.  
Consumers Power Company  
The Detroit Edison Company  
El Paso Natural Gas Company  
Equitable Gas Company  
Georgia Power Company  
Gulf States Utilities Company  
The Hartford Electric Company  
Hawaiian Electric Company, Ltd.  
Houston Lighting & Power Company  
Idaho Power Company  
Iowa-Illinois Gas and Electric Company  
Iowa Power and Light Company  
The Kansas Power and Light Company  
Lone Star Gas Company  
Monongahela Power Company  
The Montana Power Company  
Niagara Mohawk Power Corporation  
Northern Natural Gas Company  
Northern States Power Company  
Northwest Natural Gas Company  
Ohio Edison Company  
Oklahoma Natural Gas Company  
Pacific Gas and Electric Company  
Pacific Lighting Corporation  
Pacific Power & Light Company  
Panhandle Eastern Pipe Line Company  
Pennsylvania Power & Light Company  
Philadelphia Electric Company  
Southern California Edison Company  
Tampa Electric Company  
The Toledo Edison Company  
Union Electric and Power Company  
Washington Gas Light Company

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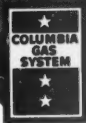
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# Columbia Gas serves a very special part of America

Of all the natural gas  
sold in the country for  
residential use, one-  
third is used by homes  
in the seven states  
where Columbia serves.



Throughout its service territory—in Ohio, Pennsylvania, West Virginia, Kentucky, Virginia, Maryland and southern New York—natural gas continues to be the preferred fuel for home and industry.

THE COLUMBIA *Gas* SYSTEM, INC.

COLUMBIA GAS SYSTEM SERVICE CORPORATION  
COLUMBIA HYDROCARBON CORPORATION  
120 EAST 41st STREET, NEW YORK 17, N. Y.

CHARLESTON GROUP: UNITED FUEL GAS COMPANY, 1700 MacCORKLE AVENUE, S.E., CHARLESTON, WEST VIRGINIA. COLUMBUS GROUP: THE OHIO FUEL GAS COMPANY, 99 NORTH FRONT ST., COLUMBUS 15, OHIO. PITTSBURGH GROUP: THE MANUFACTURERS LIGHT AND HEAT COMPANY, 800 UNION TRUST BLDG., PITTSBURGH 19, PA.

### Combustion Engineering Names Hatfield V. P.-General Sales Manager

ROBERT M. HATFIELD, formerly vice president in charge of manufacturing of Combustion Engineering, Inc., has been appointed vice president and general sales manager in charge of domestic sales, the company announced recently. He will report to Donald S. Walker, vice president and director of sales.

During World War II Mr. Hatfield was on loan to the War Production Board and ultimately became deputy vice chairman for production for all war industries. During the Korean War he organized and headed the Power Equipment Division of the National Production Authority and later became vice chairman of the Munitions Board of the Defense Department.

Mr. Hatfield is an engineering graduate of Purdue University and joined Combustion in 1934. He served as assistant general sales manager and general manager of the western division before being elected a vice president in February, 1952.

### Specialized Firm Formed To Serve Computer Field

A TEAM of leading authorities in the highly specialized field of automatic programming of electronic data processing systems has formed Computer Sciences Corp., to serve both computer users and manufacturers, it was announced in Boston recently. The firm will open offices in Los Angeles June 15th, and in September will occupy permanent headquarters in a building to be erected there this summer.

The corporation will serve the industry in feasibility studies, applications programming and problem analysis for both scientific and data processing work, a principal specialty being the development of compiler systems, the announcement said. Compilers are the most refined form of automatic programming, used in preparing instructions for computers. They provide a shorthand link between handy, rememberable codes used by programmers and complex sets of instructions in machine language needed by the computer to command itself in performing daily chores.

Fletcher Jones, formerly general supervisor of integrated data processing at North America Aviation's Columbus Division, is president. Roy Nutt, who headed automatic program-

ming at United Aircraft Corp., is design and development director, and Robert L. Patrick is director of applications programming. Mr. Patrick formerly was deputy director of the computer services division of the Corporation for Economic and Industrial Research in Washington.

The firm already is engaged in its initial assignment, the development of a new business data-processing compiler for Minneapolis-Honeywell, in cooperation with experts of that company's Datamatic Division including Dr. Richard Clippinger, director of systems and methods, and Dr. William Carter, manager of systems analysis. According to the announcement, specifications for this compiler stipulate the development of a business-oriented compiler twenty times as powerful (and only one-twentieth as expensive) as ordinary programming methods. (It will be available to users of the new Honeywell 800 system by September of this year, Mr. Jones announced.)

### 97 Utilities Win Awards In PUAA Contest

NINETY-SEVEN utility companies in the United States, Hawaii and Canada have won outstanding honors in the field of advertising, it was announced recently at the annual convention of the Public Utilities Advertising Association in Dallas.

Award certificates were presented to representatives of the winning electric, gas and water companies, for achievement in 19 classifications of advertising and public relations material. In all, 156 awards were presented.

More than 2,000 entries were received in this year's contest, the 36th annual contest conducted by the association, which is the oldest continuous advertising competition, according to James W. Lumpp, chairman. Mr. Lumpp is advertising manager of the Union Electric Co., St. Louis, Mo.

The contest included newspaper advertisements, magazines, employee newspapers, direct mail, publications, displays, posters, billboards, annual reports, radio and television, and motion pictures. With the exception of the last three divisions, in which all utilities competed as a group, the entries were divided into three categories according to the size of the utility—up to 150,000 customers, more than 150,000 and less than 400,000, and more than 400,000.

Leading the field was the Pacific Gas and Electric Company, San Francis-

co, with four first places, two second places, and three third place awards for a total of nine awards.

Wisconsin Public Service Corp. Green Bay, Wis., won five awards, and six companies won four awards each: Texas Power and Light Co., Dallas; Gulf State Utilities, Beaumont, Texas; Southern California Edison Co., Los Angeles; Consolidated Edison Company of New York, New York; Philadelphia Electric Co., Philadelphia, Pa., and the Laclede Gas Company, St. Louis, Mo.

Three awards each were won by five companies as follows:

Hope Natural Gas Co., Clarksburg, W. Va.; Columbus and Southern Ohio Electric Co., Columbus, Ohio; Detroit Edison Co., Detroit, Mich.; Southern Jersey Gas Co., Atlantic City, N. J.; and Cincinnati Gas and Electric Co., Cincinnati, Ohio.

In addition, 18 companies won two awards each, while 65 utilities each were awarded one certificate.

All award-winning material is published in the association's annual Better Copy Contest Awards Book, copies of which can be purchased by contacting Mr. Lumpp.

### Federal Pacific Reorganizes Operations of Roller-Smith Subsidiary

FEDERAL Pacific Electric Co. will market under its own trade name a line of products of its wholly-owned subsidiary, Roller-Smith, Inc., it was announced by F. H. Roby, Federal Pacific executive vice president. The half-century old electrical instrument and apparatus firm will continue its manufacturing operations under a new corporate name, Fifty Avenue L, Inc.

Production of the subsidiary's line of indicating instruments, rotary switches and precision balances will be concentrated in an ultra-modern 84,000 sq. ft. plant in Newark, N. J., with special application oil circuit breakers and subway switches scheduled for manufacture at Scranton, Pa.

Mr. Roby characterized the reorganization as a "logical step in Federal Pacific's long-range market planning." He predicted enlarged Federal Pacific participation in the nation's instrument business resulting from many new products now under development or already on the move into distribution channels.

Federal Pacific acquired Roller-Smith through exchange of stock in January of 1958.

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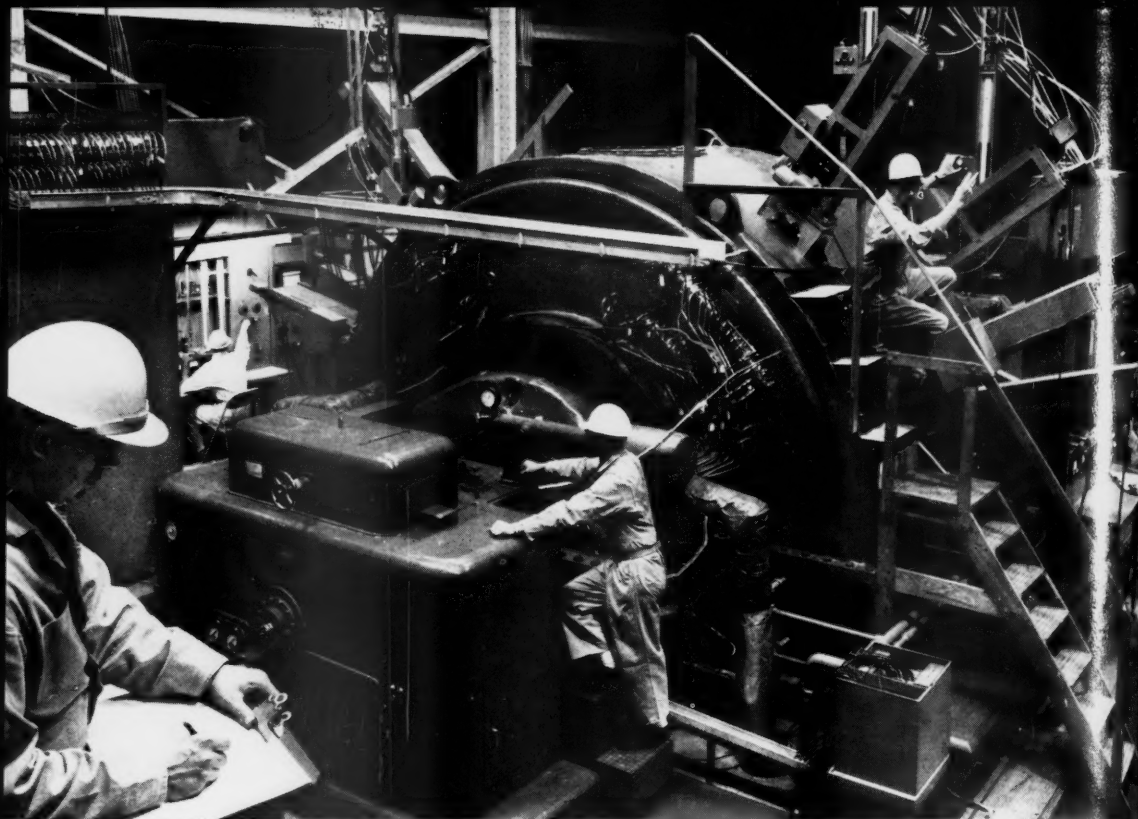
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